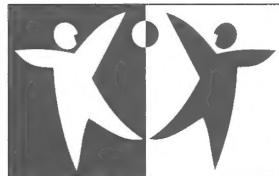


# Abstract Book

## 16<sup>th</sup> National Conference on Chronic Disease Prevention and Control



### Cultivating Healthier Communities

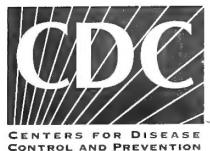
*through research, policy, and practice*

16th National Conference on Chronic Disease Prevention and Control

**February 27–March 1, 2002  
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Atlanta, Georgia**

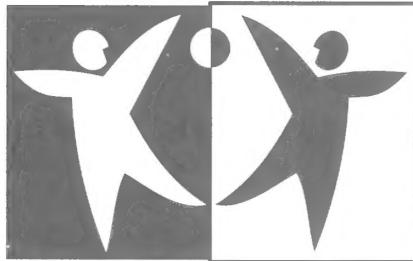
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**16<sup>th</sup> National Conference  
on Chronic Disease  
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The editors may have inadvertently altered the authors'  
meaning during the process of correcting the text.

These abstracts should not be cited as publications.

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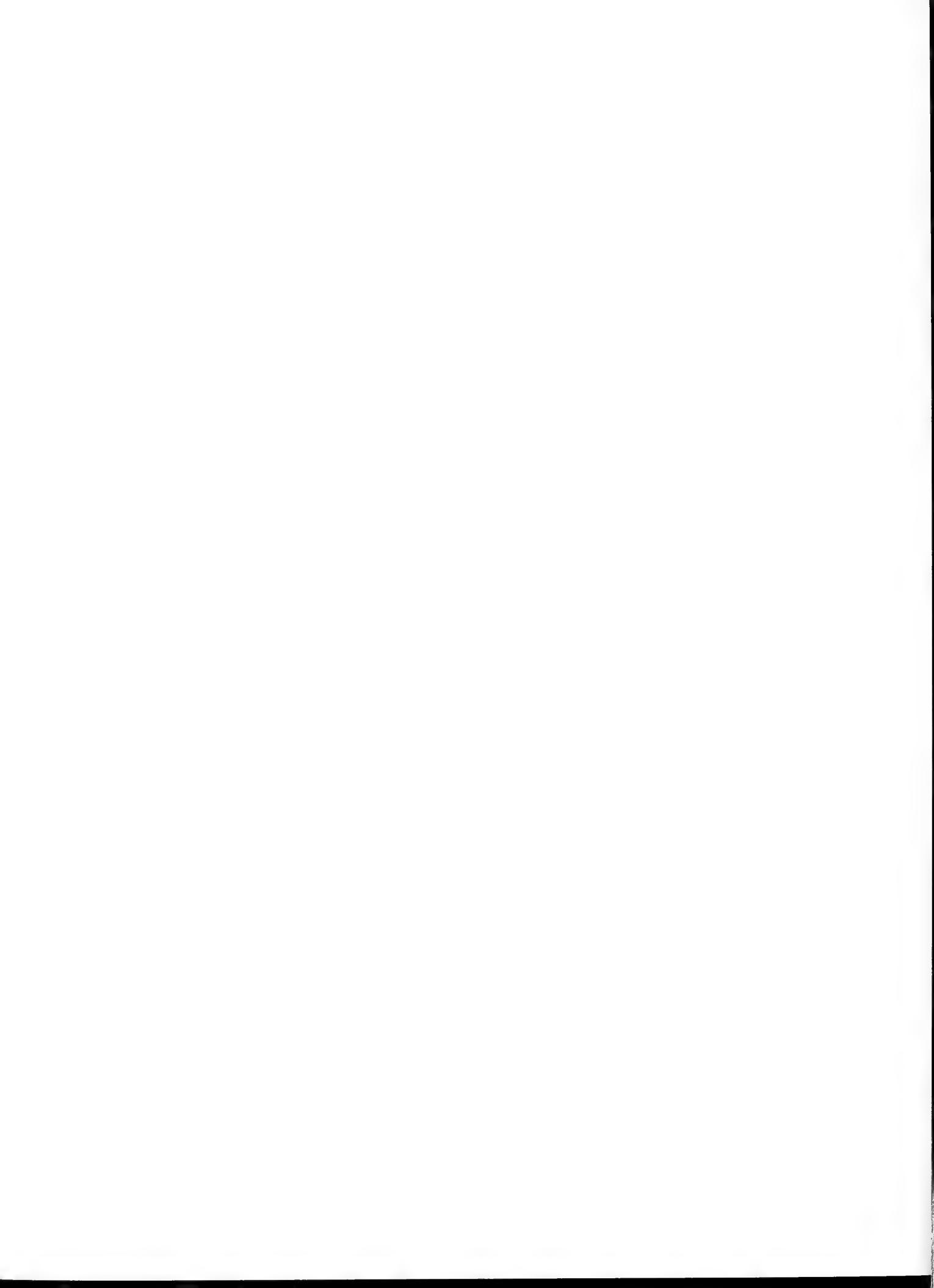
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# Oral Presentations

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# A State Health Department Physical Activity Program Inventory: Enhancing Information Exchange

N. Hood, J. Epping, E. Dunbar, G. Heath, S. Levin, R. Moeti,  
J. Shisler

**PURPOSE OF THE PROGRAM:** To provide an inventory of physical activity programs in which state health departments are involved.

**SETTING:** In promoting physical activity, state health departments are key partners with the federal government. Currently, however, the exchange of information about physical activity programming at the state level is limited.

**INTERVENTIONS:** Physical activity experts and a sample of state health department representatives contributed to the development of the inventory. The Physical Activity and Health Branch at the Centers for Disease Control and Prevention (CDC) gathered information from state health departments about existing physical activity programs. Information collected about each program included partner organizations, status, scope, target population, setting, purpose, program components, evaluation, and products.

**OUTCOMES:** A hard-copy document and a searchable database display the inventory in a user-friendly way. Program information is presented by state and by key categories. Gaps in current physical activity programming are identified.

**CONCLUSIONS:** This inventory provides quantitative and qualitative information about state health departments' involvement with physical activity programming. It will facilitate information exchange to enhance program planning and evaluation. The inventory will be used by state health departments, CDC, nonprofit organizations, funders, and other stakeholders.

**LEARNING OBJECTIVES:** By the end of this session, participants will be able to (1) use the inventory to assess multiple aspects of physical activity programming, advocate for additional resources, and identify technical assistance needs and (2) articulate the strengths and weaknesses of current statewide physical activity programming and analyze the inventory using recommendations from the physical activity section of the *Community Guide to Preventive Services*.

# 1

## SESSION

WEDNESDAY

FEBRUARY 27

1:30 PM

# Developing Indicators for Activity-Friendly Communities

L.K. Brennan, R.C. Brownson, M. Hollander, C.T. Orleans

**PURPOSE:** To identify salient policy, environmental, and social indicators of activity-friendly communities and apply them to national, state, and local efforts to increase physical activity.

**SETTING:** The Robert Wood Johnson Foundation and Saint Louis University School of Public Health build on previous efforts supported by the Centers for Disease Control and Prevention (CDC) to develop a comprehensive set of activity-friendly community measures. An expert panel comprising representatives from applied, academic, and federal initiatives convened to rate the indicators for use in various settings.

**METHODS:** Investigators searched traditional and “fugitive” literature to ensure that the set of measures included a wide range of indicators and methods for assessing the activity-friendliness of communities. A framework guided by a socioecological approach was created emphasizing policy, built-environment, and social attributes of communities. Direction from the expert panel served to enhance the framework, assess indicators and methods, and summarize findings.

**OUTCOMES:** A report recommending use of specific indicators and methods in local, state, and national settings was generated. Based on these findings, the next step is to test the indicators using geographic information systems (GIS) mapping, community audits, and telephone surveys for urban, suburban, and rural counties in Missouri.

**CONCLUSIONS:** Although many different programs are presently being implemented to promote physical activity, a summary set of indicators and methods of assessment are lacking. The presentation provides a framework within which indicators can be developed, categorized, and tested in an evidence-based manner.

**LEARNING OBJECTIVES:** Participants will learn about various indicators of activity-friendly communities and how these may be applied for community change.

# Environmental and Policy Strategies to Prevent Cardiovascular Disease and Related Chronic Conditions

J.A. Neiner, M.L. Greaney, D. Matson-Koffman, J.N. Brownstein

**OBJECTIVE:** To review the scientific and medical literature to determine whether policy or environmental interventions can increase physical activity or improve nutrition to prevent cardiovascular disease and related chronic conditions.

**SETTING:** Interventions were identified in the community at large, health care sites, schools, and work sites.

**METHOD:** Criteria used to select articles: (1) addressed policy or environmental interventions to promote physical activity or good nutrition; (2) were published from 1990 through March 2001; and (3) reported behavioral, biological, or organizational changes.

**RESULTS:** Providing point-of-purchase information can increase sales of healthy foods and promote stair usage. Training physicians and implementing office supports can increase physician nutrition counseling for high-risk patients. Reducing prices can increase healthy food purchases in cafeterias and vending machines. Physical education classes taught by a trained physical education teacher can increase students' physical activity rates during class. Providing access to on-site exercise facilities alone may not increase physical activity levels, but access to facilities in combination with counseling and outreach can increase physical activity. Because of limited sample sizes, results are often not stratified by type of population.

**CONCLUSIONS:** It is difficult to generalize results and to determine intervention effectiveness because of limited number of studies, high variability of results, variety of interventions implemented, and lack of studies adhering to a rigorous study design. Despite current limitations, policy and environmental interventions have shown promise for increasing physical activity and improving nutrition.

**LEARNING OBJECTIVES:** Participants should be better able to describe effective environmental strategies for the community at large, health care sites, schools, and work sites, and identify further research needs.

# Be Active Minnesota: Statewide Physical Activity Initiative

M. Brasure, C. Kimber

WEDNESDAY

FEBRUARY 27

1:30 PM

**PURPOSE OF THE PROGRAM:** To create a statewide physical activity initiative in Minnesota.

**SETTING:** At a statewide retreat, a consensus of key stakeholders identified a need and desire for statewide leadership to address physical inactivity. A formal planning process was developed to establish and implement a statewide physical activity initiative.

**INTERVENTIONS:** The strategic planning process included establishing a nonprofit organization, identifying potential funding support, preparing a case report demonstrating the prevalence and consequences of physical inactivity in the state, establishing communications/public relations plans, identifying initial program goals, and developing advocacy and evaluation plans.

**OUTCOMES:** The initiative committee successfully prepared a strategic plan and presented it to key stakeholders. A private, nonprofit 501c3 organization was founded, and initial contacts were made with potential funding organizations. The case report, *Be Active Minnesota: A Call to Action*, documented physical activity patterns of Minnesota residents, the estimated medical consequences and costs of these activity patterns, and policy and environmental approaches that will lead to more active community environments. A proposal was submitted to obtain funding to consult with public relations experts on the best ways to disseminate key aspects of the strategic plan to relevant audiences.

**CONCLUSIONS:** An effective statewide initiative to address physical inactivity requires a formal planning process with involvement from all key stakeholders.

**LEARNING OBJECTIVES:** Participants should be able to describe the key components of Minnesota's statewide strategic plan to address physical inactivity and how they could replicate the process in their communities.

WEDNESDAY

FEBRUARY 27

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# The Diabetes Pilot Project: Influencing Work Site Diabetes Health Care Quality

A.P. Lanza, R. Sniegowski

**PURPOSE OF THE PROGRAM:** To utilize model contract specifications in a way that will improve the quality of care delivered to employees with diabetes.

**SETTING:** A number of large companies.

**INTERVENTION:** Recognizing the key decision-making role of purchasers and working through our partnerships with national business organizations and coalitions, the Centers for Disease Control and Prevention's Division of Diabetes Translation (DDT) will use model contract specifications, developed by George Washington University's Center for Health Services, Research, and Policy, to characterize the current health care benefits provided to employees with diabetes through existing contracts.

**OUTCOMES:** The resulting comprehensive analysis will help DDT and its business partners determine the congruency between the model purchasing specifications, based primarily on established guidelines of care, and the real world of actual coverages. A similar analysis of various health plans' predetermined package of health care coverages for people with diabetes will be conducted. A detailed description of similar state health department initiatives (through our diabetes control programs) will also be shared.

**CONCLUSION:** We believe that this process will inform and influence decisions made regarding the provision of health care coverage currently offered to employees with diabetes.

**LEARNING OBJECTIVES:** Participants will be able to recognize the importance and public health implications of establishing partnerships with businesses and health plans; learn a useful method of bringing value and evidence-based information into this partnership; and construct a consultative approach, rather than one perceived as being based on mandates or regulations.

# 2

SESSION

WEDNESDAY

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## Incorporating Skin Cancer Prevention into Outdoor Work Sites

A. Manthe

**PURPOSE OF THE PROGRAM:** To present how to successfully incorporate sun-protection training, policies, and practices into outdoor-based occupational enterprises.

**SETTING:** The California Department of Health Services' Skin Cancer Prevention Program, the California Department of Transportation, and an advisory group including dermatologists and construction safety officers crafted the concept of developing a sun safety kit.

**INTERVENTIONS:** Focus group input from management and line staff of outdoor work venues directed the development, testing, and evaluation of a pilot sun safety kit. Two versions of a revised kit were then produced and sent to over 1,600 facilities throughout California during 2000. One kit targeted parks and recreation sites, and the other kit targeted road and housing construction firms. Kit components included original posters, fact sheets, a video, a policy template, and various promotional items.

**OUTCOMES:** Kit impact surveys completed by safety staff at 150 work sites of participating employers indicated that (1) 57.3% of outdoor employees adopted at least one new sun safety behavior on the job; (2) overall site practice of sun safety measures increased from 5.8 to 7.9 on a scale of 1 (no practice) to 10 (high practice); and (3) the overall kit effectiveness/appeal rated 4.3 on a scale of 1 (poor) to 5 (excellent).

**CONCLUSIONS:** Outdoor workers are receptive to receiving and using a sun safety kit. The kit is a cost-effective tool to increase employee practice of sun safety behaviors.

**LEARNING OBJECTIVES:** Session participants will be able to state why sun safety practice is important for outdoor workers and describe practical steps for integrating skin cancer prevention into the practices of their employers.

WEDNESDAY

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# Promoting Heart Disease Prevention at Work Sites in Queens, New York City

M. Bayne-Smith

**PURPOSE OF THE PROGRAM:** To help employers provide healthy lifestyle opportunities for employees.

**SETTING:** Senior managers from 12 work sites in Queens County, New York City, collaborated with the Queens College/City University staff to establish site-specific heart-healthy objectives and develop intervention strategies to meet those objectives.

**INTERVENTIONS:** Data were collected at baseline using the Heart Check (HC) instrument. Subsequently, a Health Interest/Needs survey was conducted, and company demographics and communication methods were used to establish work site objectives and design intervention/promotion strategies. The HC survey form, in which the unit of measure is the work site as opposed to the individual employee, documented the extent to which a work site environment supports and promotes healthy behaviors among workers. The Health Interest/Needs surveys documented the extent to which employees preferred one or another particular type of preventive behavior.

**OUTCOMES:** A unique site-specific set of objectives and plan for intervention/promotion was developed for all 12 sites. Most chose to establish two goals: making healthy food available through vending machines or cafeterias, and increasing employees' physical activity. Of the total cohort of employees represented, approximately 75% now have access to a Walking Club at work, as well as 5–10 choices of healthy food available to them on a daily basis. Of the 12 work sites, those with higher HC scores for readiness (to establish employee health promotion programs) developed 3–4 times as many healthy lifestyle opportunities for their employees.

**CONCLUSIONS:** Based on data collection and analysis, a comprehensive work-site wellness program was designed for and promoted to employees. The programs at 80% of the work sites met at least 90% of their objectives.

**LEARNING OBJECTIVES:** Participants should be able to use data to develop reasonable and achievable objectives for a work-site wellness program, use program objectives to plan and implement health promotion activities, and understand ways to work with employers in making health promotion for employees a critical component of the work environment.

## County Readiness to Meet Healthy People 2010 Objectives

N.F. Kanarek, R. Bialek, Y. Shaw-Taylor, A. Shah

WEDNESDAY

FEBRUARY 27

3:15 PM

**OBJECTIVE:** To describe the readiness of U.S. counties to address national Healthy People (HP) objectives.

**SETTING:** “Healthy communities” is a significant part of the nationwide *HP 2010* initiative. Identifying local areas in need of health improvement is relatively straightforward but readiness to improve has not been examined heretofore.

**METHOD:** Nine key age-adjusted *HP 2010* mortality indicators were examined for the 3,082 U.S. counties identified in the Community Health Status Indicators database. Determination of whether counties have “met” or “not met” the *HP 2010* target and were “improving” or “not improving” was made for the period 1993–1997. From these dichotomous variables, four categories were created, indicating the stage of health improvement readiness.

**RESULT:** Counties exhibited the greatest readiness for improvement in coronary heart disease mortality; fewest jurisdictions had both not met *HP 2010* targets and were not improving (35%). Least readiness was exhibited by a majority of communities (65%), which had not met and were not improving in the mortality indicators for colon/rectum cancer and suicide. Nevertheless, for 8 of the 9 indicators, one-fourth or more of communities had both met the target and were still improving.

**CONCLUSION:** Local jurisdictions and state planners should consider using this simple method for assessing readiness to meet *HP 2010* targets. Health improvement categories designate counties with the least readiness to improve and suggest specific technical assistance needs to assure good health in the future.

**LEARNING OBJECTIVES:** The audience will be able to divide counties into health improvement readiness categories and distinguish the unique needs of those in each readiness category.

## Pilot Policy and Environmental Indicators for State Surveillance of Cardiovascular Health

D. Matson Koffman, J.N. Brownstein, D. Buchner, W.H. Dietz,  
J.N. Epping, L.W. Green, G.C. Hogelin, L.J. Kolbe, S.A. Kuester,  
S.J. Lockhart, G. MacDonald, G.A. Mensah, L. Petersen,  
D.C. Ramsey, L. Redman, C. Sanders, T.L. Schmid, M.W. Schooley,  
N.B. Watkins, H. Wechsler

**PURPOSE OF THE PROGRAM:** To present a list of pilot policy and environmental indicators for state surveillance of cardiovascular health (CVH), the process used to identify them, and future plans.

**SETTING:** Since 1998, the Centers for Disease Control and Prevention (CDC) convened working groups to identify policy and environmental CVH indicators for physical activity, nutrition, tobacco use, and other risk factors that states can collect and track over time.

**INTERVENTION:** Indicators were collected from a variety of sources including (1) CDC's handbook "Evaluating Community Efforts to Prevent Cardiovascular Disease," (2) scientific studies, (3) CDC's school health guidelines and School Health Index, (4) materials from Canada's Heart Health Program, (5) instruments such as *HeartCheck* that assesses workplace resources supporting heart-healthy lifestyles, (6) the American Heart Association *Guide for Prevention of Cardiovascular Diseases*, (7) *Best Practices for Comprehensive Tobacco Control*, and (8) suggestions from staff at state health departments.

**OUTCOMES:** A working group from divisions in CDC's National Center for Chronic Disease Prevention and Health Promotion identified a smaller number of indicators for potential surveillance. Examples include work sites that provide heart-healthy food and beverage choices in cafeterias; state laws that prohibit smoking in public places; school policies that require daily physical education; and managed care plans with policies to incorporate nationally accredited guidelines for cardiovascular disease prevention.

**CONCLUSIONS:** These indicators will provide guidance to states for program planning, evaluation, and policy development to promote cardiovascular health.

**LEARNING OBJECTIVES:** Participants will be able to describe policy and environmental indicators for CVH, the process used to develop them, and plans for their evaluation.

## Disease Risk Index Developed to Reinforce Prevention Messages on the Web

C. Stein, G. Colditz

**OBJECTIVE:** To expand the existing cancer risk index to address multiple chronic diseases, increase awareness of common risk factors, deliver personalized messages, and motivate persons to make healthy lifestyle choices.

**SETTING:** World Wide Web.

**INTERVENTION:** Despite evidence that lifestyle factors play a major part in the development of chronic diseases, many persons have limited understanding of personal factors associated with disease risk. An interactive, Web-based tool ([www.YourCancerRisk.harvard.edu](http://www.YourCancerRisk.harvard.edu)) was developed to provide personalized cancer risk assessment and tailored messages regarding risk reduction. Building on the model of this index, four chronic diseases are being added: coronary heart disease, cerebrovascular disease, osteoporosis, and diabetes mellitus. These additional indices will emphasize multiple benefits from behavior change and reinforce preventive messages regarding risk factors such as smoking, overweight and obesity, poor diet, and inactivity. The computer program assigns risk points based on responses to the index questionnaires and presents personal risk relative to a population average. Tailored messages, which can be accessed through a person's risk factor or disease of interest, will provide information to encourage and reinforce positive health behaviors.

**CONCLUSIONS:** Adding other chronic diseases to the cancer risk index will reinforce preventive health messages by emphasizing how lifestyle factors impact multiple chronic diseases and how behavior change offers multiple benefits. This expansion is the next step in meeting the challenge of providing personally relevant and motivating messages based on a person's needs and concerns.

**LEARNING OBJECTIVES:** Participants should be able to access basic information about chronic diseases, risk factors, and the relationships between them. Participants who complete questionnaires should also learn about their personal risk relative to the population average and receive positive reinforcement for current healthy behaviors and motivating, practical information on ways to further decrease risk.

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# Leveraging the Web to Deliver Public Health Information

C.M. Caron, B. Marshall

**PURPOSE:** Leveraging the Web, health communication, and social marketing strategies to deliver Web-based public health information.

**SETTING:** The number of health-related Web sites is growing exponentially. There are now more than 15,000, and over half of Internet users report looking for health information. Health departments are key agencies to deliver credible Web-based information. The Rhode Island (RI) Health Department conducted qualitative research with diverse population segments and designed a Web site based on audience-driven principles, health communications, social marketing, and innovative technology.

**INTERVENTIONS:** Internal and external needs assessment identified the nature of the content desired, page design, and navigational schemes. External needs assessment applied social marketing strategies by conducting focus groups with diverse population segments. An internal needs assessment was conducted with RI health department employees. Inductive analysis was the methodology for data analysis and coding.

**OUTCOMES:** Results yielded a mix of commonly shared and population-specific needs. Content areas concerning health behaviors, disease prevention, disease topics, and socio-cultural-physical environment were overlaid with tailored messages and computer-mediated interventions. Focus group research and usability studies guided the presentation of information, page layout, and navigation. A departmentwide infrastructure was established for policy recommendations and Web site monitoring. Collaborative Web training was given to community-based organization members from marginalized populations.

**CONCLUSION:** The Web site serves a key function for the health department by delivering real-time health information to a wide audience driven by audiences' needs.

**LEARNING OBJECTIVES:** Participants will be better able to leverage the Web to deliver effective public health information grounded in health communication, social marketing, and media advocacy theories.

# 4

SESSION

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## Developing Tailored Storybooks for Underserved Children in Intergenerational Tutoring Programs

N.M. Caito, D. Haire-Joshu, M.W. Kreuter, C. Casey, B. Mazdra

**PURPOSE OF THE PROGRAM:** To promote positive lifestyle behaviors of underserved 7- to 9-year-old children by developing a series of tailored storybooks for use by intergenerational tutors.

**SETTING:** A collaboration of school of public health researchers and 23 St. Louis Area school districts participating in an intergenerational tutoring program, including one pilot site.

**INTERVENTION:** Develop tailored storybooks as a component of a lifestyle intervention for underserved children participating in an intergenerational tutoring program. The basic storylines, graphics, and specific tailored messages were developed after a review of children's literature, literacy, and behavioral theories used in nutrition and physical activity interventions, as well as an assessment of focus groups with St. Louis children aged 7–9, their caregivers, and their tutors. The storybook graphics and text were tailored to each child based on responses to a tutor-administered survey.

**OUTCOMES:** Results of pilot study evaluations suggest tailored storybooks can be produced in a timely fashion for use by tutors as part of their routine program curriculum. Tutors, children, and their caregivers recognized that the storybooks were tailored to the characteristics of each child, and responded positively to the content, focus, and graphics of the storybooks.

**CONCLUSIONS:** Tailored storybooks can be developed and incorporated into intergenerational tutoring programs as a unique way to promote positive lifestyle behaviors.

**LEARNING OBJECTIVE:** Participants will understand the innovative process of developing a series of tailored storybooks as a component of lifestyle intervention to be used within intergenerational tutoring programs.

## So Many CDCynergies, So Little Time: How to Choose and Use the Best One for You

S. Lockhart, V. Brandon, M. Dixon, J. May, M. Roland, M. Shepard

**PURPOSE OF THE PROGRAM:** To describe key features, case examples, and resource materials included in four new editions of CDCynergy, a CD-ROM-based health communication planning tool developed by the Centers for Disease Control and Prevention (CDC).

**SETTING:** During the past year, the CDC Office of Communication has overseen the production of multiple editions of CDCynergy, a CD-ROM-based tool for planning health communication interventions within a public health framework. The original tool was intended for use by CDC health communication planners. In response to requests from outside CDC, a new basic and five tailored editions of the tool have been produced for widespread distribution. The five tailored editions focus on immunization, international micronutrients, and three chronic disease areas: cardiovascular health, diabetes, and tobacco.

**INTERVENTIONS:** This panel will consist of staff from the new basic and the three chronic disease CDCynergy teams. Panel members will discuss key features, case studies, and resources included in each edition and criteria for determining which edition to use for specific chronic disease programs being conducted by state health departments and their partners and others. Lessons learned from early field testing of the CDCynergy editions will be presented, as well as future plans for training and for disseminating and updating the tools. Panel members will also recommend communication practices and resources that best complement the tool.

**LEARNING OBJECTIVES:** Participants should be better able to describe the main differences among the four editions of CDCynergy and to choose the most appropriate edition for their specific chronic disease program area.

## Coming up to Speed: Prevention Research Centers' School Health Network

N. Murray, C. Hollis, A. Cross, S. Davis, B. Bova

WEDNESDAY

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**PURPOSE:** To promote the Coordinated School Health (CSH) model among school administrators, teachers, and university faculty.

**SETTING:** The Division of Adolescent and School Health (DASH) at the Centers for Disease Control and Prevention, the Council of Chief State School Officers, Healthy People 2010, and the National Governor's Association support using the CSH model in America's schools. Three prevention research centers work with school administrators, teachers, university education faculty, and state officials to promote CSH.

**INTERVENTIONS:** Literature linking CSH with academic outcomes was reviewed, and expert opinion was solicited from leaders in education and public health. University faculty designed preservice training modules for teachers and school administrators. School administrators and teachers attended statewide workshops on CSH.

**OUTCOMES:** An advocacy document, "Student Achievement through Better Health," has been disseminated to CSH advocates and school personnel. A multi-media Web site to promote CSH is being constructed to present positive CSH case studies, downloadable presentations, the advocacy document and its background, and references. University-level preservice training modules on CSH have been provided to Texas and New Mexico faculty. North Carolina school administrators have been trained in CSH in statewide workshops.

**CONCLUSIONS:** In three states, progress is being made in promoting the positive potential and use of CSH at the university and community levels. Social marketing can enhance this advocacy by relating CSH to handling school concerns.

**LEARNING OBJECTIVES:** Participants should be better able to advocate the use of CSH by addressing schools' concerns and using the advocacy document and presentation materials discussed.

# School-Based Tobacco Prevention: A Systematic Review for the *Guide to Community Preventive Services*

D. Hopkins, L. Wesphal, L. Crossett, L. Pederson, C. Backinger

**OBJECTIVE:** To report the results and conclusions from a systematic review of the published evidence on the effectiveness of selected school-based interventions to reduce tobacco use and exposure to environmental tobacco smoke.

**SETTING:** The *Guide to Community Preventive Services* provides systematic reviews and evidence-based recommendations on population-based interventions to prevent disease and promote health. An independent, nonfederal task force will provide reviews and recommendations on interventions in 15 major public health areas, including tobacco product use.

**METHODS:** We developed a systematic process to identify, abstract, evaluate, and summarize studies describing interventions selected for review. Each intervention review summarizes the evidence on intervention's effectiveness, applicability to different populations and settings, additional benefits, potential harms, and economic impact. The task force translates evidence on effectiveness into recommendations for use following an explicit process.

**RESULTS:** The task force reviewed the evidence of effectiveness of the following interventions: prevention curricula, school policies, cessation programs, community-directed student advocacy efforts, and comprehensive programs. Each review highlights critical intervention characteristics, illuminates differences by population and setting, and generates an agenda for further research.

**CONCLUSIONS:** These systematic reviews and task force recommendations provide information to assist communities in selecting, funding, and implementing effective interventions.

**LEARNING OBJECTIVES:** Participants should be able to describe the standardized process in a Community Guide review and understand the evidence basis for these task force recommendations.

## From Demonstration to Implementation: Use of the Planet Health Curriculum in Boston

J. Wiecha, J. Carter, K. Peterson, S. Gortmaker, N. Strunk, S. Johnson

**PURPOSE:** Describe the use of diffusion of innovation theory and the data-action cycle in the implementation of a health education curriculum in an urban school system.

**SETTING:** Curriculum adoption is an example of school policy. *Planet Health* is an interdisciplinary middle school health curriculum. Following a randomized controlled trial demonstrating its effectiveness, we studied adoption and maintenance in Boston.

**METHODS:** In year 1, we worked with administrators to identify sites and data needed to guide policy decisions. In years 2 and 3, teachers implemented *Planet Health* and completed baseline and follow-up surveys based on diffusion of innovation theory. Administration support was tracked through surveys and meetings.

**RESULTS:** In year 2, the curriculum was highly acceptable among 51 of 65 classroom teachers reporting. Ninety percent said *Planet Health* was a positive curriculum addition, 92% said it affected students positively overall, 90% said they would teach it again, 73% reported using innovative teaching techniques from *Planet Health* in other classes, and 75% reported positive effects on their own health habits. Year 3 teacher data will be presented. Over 3 years, administrators moved from cautious adoption to using survey results to seek systemwide approval, and finally, to seeking funding to support the maintenance and broader adoption of *Planet Health*.

**CONCLUSIONS:** Implementation evaluation data helped administrators decide to pursue broader adoption and maintenance strategies. The data-action cycle helped guide school-based policy change.

**LEARNING OBJECTIVES:** Participants will understand *Planet Health* and the application of diffusion of innovation theory and the data-action cycle to school-based policy change.

# Childhood Obesity: Combatting Exclusive Contracts Between Soft Drink Companies and Schools

D. S. Oto-Kent, J. Porter

**PURPOSE OF PROGRAM:** To address societal contributors to childhood obesity in California.

**SETTING:** Soft drink consumption among children has increased steadily over the last 30 years, contributing to childhood obesity. Recently, soft drink companies have been approaching school districts for exclusive marketing rights in schools where increased long-term revenue is dependent on student consumption.

**INTERVENTIONS:** A collaborative was formed between the Health Education Council, the Center for Commercial-Free Public Education, local parent-teacher associations, and state health agencies to increase public awareness and educate school board members about the health consequences of these contracts. Strategies included direct education for school boards, media campaigns, advocacy, and assistance to boards in policy development.

**OUTCOMES:** Two large districts in California rejected exclusive contracts with major soft drink companies. One district has enacted a task force to study the nutritional value of foods available on campus; however, criticism of both districts has been widespread. After voting down an exclusive contract, one district is now reconsidering.

**CONCLUSIONS:** Prevention strategies to address the childhood obesity epidemic in California must not focus solely on individual behavior but must also address societal contributors that include the role of schools/school districts in providing healthy environments. Prevention strategies are necessary and should include district policies to ban exclusive pouring contracts and improve nutritional offerings on campuses.

**LEARNING OBJECTIVES:** Upon completion of the session, participants will be able to (1) adopt the strategies for implementation in their own communities and (2) educate local school boards about the consequences of exclusive pouring contracts.

# 6

SESSION

WEDNESDAY

FEBRUARY 27

5:00 PM

## Healthy Passages: A Community-Based Longitudinal Study of Adolescent Health — Framework and Design

*M. Windle, G. Parcel, M. Schuster, J. Grunbaum, S. Berry,  
S. Tortolero, S. Kelder*

**OBJECTIVE:** To describe the Healthy Passages conceptual framework and Healthy Passages study design.

**SETTING:** Healthy Passages is a longitudinal study designed to help families, health care providers, schools, and communities develop effective programs and policies to improve the health of our young persons. Three prevention research centers (University of Alabama at Birmingham, University of Texas at Houston, and University of California at Los Angeles/RAND) were funded in fall 1999 to plan and conduct a single-protocol, multisite research study, in which they will annually assess 10,500 young persons (age 8 at baseline) through age 20.

**METHOD:** The conceptual framework for the study posits that genetic factors, personal factors, and environmental factors have a direct influence on health behaviors, biological indicators, and health and educational outcomes. The young persons will represent different races, ethnicities, and socioeconomic strata.

**RESULTS:** The results of Healthy Passages will provide an empirical basis for development of effective policies and programs to improve the health and well-being of adolescents and adults; help researchers understand the factors that cause disparities in outcomes by race/ethnicity, sex, and socioeconomic status; and characterize developmental trends and the relative contribution of important factors influencing behaviors and health over time.

**CONCLUSIONS:** Healthy Passages will build upon previous and existing longitudinal studies and provide a more comprehensive assessment of etiologic factors that influence health behaviors and health outcomes.

**LEARNING OBJECTIVE:** Participants should be able to describe the Healthy Passages conceptual framework and study design.

## A Community-Based Longitudinal Study of Adolescent Health— Measurement

*S. Tortolero, J. Grunbaum, J. Wallander, P. Cuccaro, D. Kanouse,  
M. Schuster, E. Temple*

**OBJECTIVE:** To describe the Healthy Passages data collection measures.

**SETTING:** Three prevention research centers (University of Alabama at Birmingham, University of Texas at Houston, and University of California at Los Angeles/RAND) were funded in fall 1999 to initiate planning for and conduct a single-protocol, multisite longitudinal research study, in which they will annually assess 10,500 young persons (age 8 at baseline) through age 20.

**METHOD:** Data sources will include the child, primary caregiver, school records, neighborhood observation, and other existing data sources. Outcomes will include health behaviors (e.g., physical activity, nutrition, tobacco use, alcohol and other drug use, unintentional injury and violence, and sexual behaviors), health outcomes (e.g., mental health, pregnancy, sexually transmitted diseases, obesity, homicide, and suicide), and educational and social outcomes (e.g., academic achievement, school dropout, and incarceration). Etiologic factors to be measured include genetics, temperament, parenting style, peer relations, poverty, connectedness, media influences, and neighborhood characteristics.

**RESULTS:** The results of Healthy Passages will provide an empirical basis for the development of effective policies and programs to improve the health and well-being of adolescents and adults; help understand the factors that cause disparities in outcomes by race/ethnicity, gender, and socioeconomic status; and characterize developmental trends and the relative contribution of important factors influencing behaviors and health over time.

**CONCLUSIONS:** Healthy Passages will build upon previous and existing longitudinal studies and provide a more comprehensive assessment of etiologic factors that influence health behaviors and health outcomes.

**LEARNING OBJECTIVE:** Participants should be able to describe the Healthy Passages data collection measures.

# 6

SESSION

WEDNESDAY

FEBRUARY 27

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## A Community-Based Longitudinal Study of Adolescent Health—Power and Analysis

*M. Elliott, S. Kelder, C. Katholi, S. Kilpatrick, J.A. Grunbaum,  
M. Windle, M. Schuster*

**OBJECTIVE:** To describe the Healthy Passages statistical power and data analysis approach.

**SETTING:** Three prevention research centers (University of Alabama at Birmingham, statistical power and data analysis approach; University of Texas at Houston; and University of California at Los Angeles/RAND) were funded in fall 1999 to initiate planning for and to conduct a single-protocol, multisite longitudinal research study, in which they will annually assess 10,500 young persons (age 8 at baseline) through age 20.

**METHOD:** The sample design will produce a probability sample of 3rd-grade students at each of three sites and oversample those with less common combinations of socioeconomic status and race/ethnicity designations to provide good statistical power for comparing developmental trajectories within these subgroups. Data will have a multilevel longitudinal structure and will cover a variety of priority public health issues. Analytic models will include longitudinal modeling, time series analysis, survival and event history analysis, latent transition analysis, and structural equation modeling.

**RESULTS:** The results of Healthy Passages will provide an empirical basis for the development of effective policies and programs to improve the health and well-being of adolescents and adults; help officials understand the factors that cause disparities in outcomes by race/ethnicity, gender, and socioeconomic status; and characterize developmental trends and the relative contribution of important factors influencing behaviors and health over time.

**CONCLUSION:** Healthy Passages will build upon previous and existing longitudinal studies and provide a more comprehensive assessment of etiologic factors that influence health behaviors and health outcomes.

**LEARNING OBJECTIVE:** Participants should be able to describe the Healthy Passages statistical power and data analysis approach.

WEDNESDAY  
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## Investment in Tobacco Control

M. Albuquerque

**OBJECTIVES:** To describe the scientific evidence supporting the dose-response relationship between the level of investment in effective tobacco control programs and reductions in cigarette consumption.

**SETTING:** According to Surgeon General Satcher, we know more than enough to act to reduce the public health burden of tobacco use and to meet the ambitious *Healthy People 2010* objective of halving the prevalence of smoking among youth and adults. However, it takes more than knowing what works. It takes the fiscal resources to implement these proven strategies. The availability of funds from the settlement of the states' lawsuits against the tobacco industry, state excise tax revenues and general funds, and federal and private sources provide the financial means to take action. *Best Practices for Comprehensive Tobacco Control Programs*, by the Centers for Disease Control and Prevention (CDC), provides specific programmatic recommendations and specific funding ranges.

**METHOD:** CDC's Office on Smoking and Health conducted a legislative analysis of all tobacco settlement appropriations to tobacco control programs. CDC also worked with federal and national funders as well as state health and budget offices to identify additional investments in state tobacco control programs. CDC compared these state investments with the specific funding ranges in *Best Practices for Comprehensive Tobacco Control Programs*.

**RESULT:** In fiscal year 2001, combining resources available from state, federal, and national sources, seven states met or exceeded CDC's lower-bound funding recommendations. FY 2002 results will be released in January 2002.

**CONCLUSION:** Evidence indicates that there is a dose-response relationship between levels of investment in effective tobacco control programs and declines in per-capita cigarette consumption.

**LEARNING OBJECTIVES:** Participants should be able to describe a comprehensive tobacco control program, the funding level required to implement the program, the process for determining investments in state tobacco control programs, and the linkages between levels of investment and declines in per-capita consumption.

WEDNESDAY

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## The National Tobacco Control Program Forum: A Web-Based Public Health Information-Sharing Application

*J. London*

**PURPOSE OF THE PROGRAM:** To promote an innovative and effective way to share chronic disease information among national, state, and local public health professionals.

**SETTING:** The Centers for Disease Control and Prevention's Office on Smoking and Health (OSH) is a leader in the agency's efforts to promote innovative and effective ways to share information among national, state, and local public health professionals. The National Tobacco Control Program (NTCP) Forum, an Internet-based information-sharing application, provides access to crucial, on-the-spot information resources and promotes the sharing of information in a way that can be useful to all public health disciplines.

**INTERVENTIONS:** The NTCP Forum's ease of use, state input used to improve its usability, its use by different categories of chronic disease health professionals, and how users make the most of forum-derived information were investigated.

**OUTCOMES:** OSH's support of the NTCP Forum has resulted in increased document sharing (e.g., state plans, requests for proposals), consolidated listserve postings, and sharing of information useful in planning, implementing, and evaluating comprehensive tobacco control programs. Feedback from users was incorporated into the Forum.

**CONCLUSION:** The NTCP Forum provides public health practitioners with an opportunity to share experiences, challenges, expertise, strategies, lessons learned, and news information.

**LEARNING OBJECTIVES:** Participants should be better able to describe (1) the usefulness of an Internet-based information-sharing application, (2) the variety of professionals that use the application, and (3) the lessons learned from an assessment of the application and its potential usability in other chronic disease disciplines.

WEDNESDAY  
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# Strategic Pathways to the Adoption of Municipal Tobacco Control Ordinances

S.P. Hays, J. Vinzant, C.E. Hays

**OBJECTIVE:** To explain and describe the unique strategic pathways by which municipal ordinances for tobacco control have been adopted in 20 communities around the country.

**SETTING:** This presentation will summarize the results of our 20-community comparative case study of the adoption of both youth-access and indoor-air ordinances. This 2-year project is funded by the Robert Wood Johnson Foundation, Substance Abuse Policy Research Program.

**OUTCOMES:** To date, our research has revealed three unique strategic pathways to municipal tobacco control ordinance adoption. These are the “strategic planning pathway,” the “interest mobilization pathway,” and the “council maverick pathway.” Other findings include the varying roles that are required of community “policy entrepreneurs” who serve to guide this process and the critical but complicated role of outsiders who act as “change agents.” We have also found that the involvement and support of health departments in our study communities varies tremendously from being the key driving force to complete noninvolvement; ordinance adoption is possible under both conditions. Our outcomes also address the pertinent question of how and under what conditions our communities have compromised on specific provisions of their tobacco control ordinances.

**CONCLUSION:** The study’s conclusion is that diverse strategic pathways can be successful in the process of adopting municipal ordinances for tobacco control.

**LEARNING OBJECTIVES:** Participants should be able to apply the notion of strategic pathways to their own community setting. This goes far beyond the ability of other simple case studies of ordinance adoption that, in our view, too often make blanket strategic recommendations that they assume apply to any community. Additional learning objectives include how to enlist the support of outside groups, how to assess and respond to the role of the health department, and how to deal with opposition from the industry.

WEDNESDAY

FEBRUARY 27

5:00 PM

## Using an Expert Panel to Evaluate Creative Concepts for a Tobacco Prevention Mass Media Campaign

*S. Connolly, K. Worden, B. Flynn*

**OBJECTIVE:** To demonstrate the benefits of using an expert panel to guide the development of effective mass media messages for cigarette smoking prevention.

**SETTING:** PRYSM is a 5-year multistate research project that will develop and test tobacco prevention and cessation television and radio messages.

**METHOD:** A panel of experts in the field of health message design rated and discussed advertising concepts submitted by 12 media producers. Concepts were evaluated on the basis of how well they met the overall PRYSM campaign objectives and whether they addressed four guiding educational objectives. Forty-five concepts were selected to be developed as test messages. Preliminary versions of television and radio spots were pretested with audiences of young people in the targeted age group to determine if spots were perceived to address the four guiding educational objectives. Expert panel and target audience assessments of objectives addressed by test messages were compared.

**RESULT:** A strong correlation was found between the expert panel's rating and the audience's pretest rating of the educational objectives for Campaign 1 (.78) and 3 (.72) (Grades 4–6 and 9–12). For Campaign 2 (Grades 7–8), there was a low to moderate correlation (.37).

**CONCLUSION:** A panel comprising experts in the field of health communication, youth media, and behavior science can guide development of effective messages for a mass media campaign designed to prevent adolescent smoking.

**LEARNING OBJECTIVE:** Participants will learn how to use an expert media panel to develop cigarette smoking prevention messages for the mass media.

WEDNESDAY  
FEBRUARY 27  
5:00 PM

# Health Cost Impact of the Lifetime Fitness Program

J.P. LoGerfo, A. Cheadle, E. Wagner, N. Sandhu

**OBJECTIVE:** The Lifetime Fitness Program (LFP) is a group exercise program for older adults that includes balance, flexibility, strength, and aerobic exercises. We studied the impact of the program on health costs and utilization.

**METHOD:** We identified 1,114 enrollees in Group Health Cooperative (GHC) who had enrolled in the Lifetime Fitness Program, which is offered as a benefit to GHC members. LFP enrollees were compared with 3,342 age- and gender-matched controls (1:3 ratio) for demographic, health, health utilization, and health costs in the period prior to and after program entry. We adjusted the comparisons for baseline health status differences between the two groups using a three-part chronic disease score (CDS).

**RESULTS:** At baseline the case and control groups were similar in terms of age, sex, and CDS score, but the case group had greater total costs (\$4,411 vs. \$3,932,  $P=.03$ ). The 1-year follow-up showed a trend toward lower increases in annualized costs for the case group (+\$641 vs. +\$1,175,  $P=.07$ ) during the period following their first participation in an LFP class. A dose-response analysis showed similar savings in cost increases for those with fewer than 120 days of participation and an actual decrease in overall costs for those with more than 120 days (-\$71 vs +\$1,175;  $P=.01$ ). Regression analysis suggests a \$7.50 saving for each session attended.

**CONCLUSION:** Under normal operating conditions, the LFP program appears to result in cost savings, especially when used more than two times per week.

**LEARNING OBJECTIVE:** Participants will gain a better understanding of how a community-based exercise program for relatively sedentary adults can reduce health costs.

## Prevalence of Diabetes Among the Elderly: A Comparison of Medicare Data with BRFSS Data

*Y. Huang, M. Wu, R. Hill, N. Scruggs*

**OBJECTIVE:** To estimate diabetes prevalence among people aged 65 years and older with Behavior Risk Factor Surveillance System (BRFSS) data and Medicare data, and to assess the rate at which diabetes among the elderly is reported in the BRFSS.

**SETTING:** Diabetes is a major chronic disease in the United States. The BRFSS surveys diabetes every year and is widely used to estimate diabetes prevalence. Little is known about the percentage of people who were diagnosed with diabetes and who reported having diabetes in the BRFSS survey. Medicare part A and part B data collect claims for medical services among Medicare beneficiaries and cover all people aged 65 and older.

**METHOD:** The 1997–1999 South Carolina (SC) Medicare data (part A and part B) were provided and analyzed by Carolina Medicare Review. Only Medicare beneficiaries aged 65 and older were included in the analyses. People were determined to have diabetes if they had been diagnosed with diabetes during two outpatient visits or one hospitalization. The 1997–1999 SC BRFSS data were analyzed for diabetes among people aged 65 and older. People were determined to have diabetes if they reported that they were ever told by a doctor that they had diabetes.

**RESULTS:** Among 508,898 Medicare beneficiaries aged 65 and older, 124,696 (24.5%) were diagnosed with diabetes. Nonwhites (97% of whom are black in SC) had a higher prevalence (35.1%) than whites (21.4%). Nonwhite women had the highest prevalence (39.7%) among race-sex groups. The 1997–1999 BRFSS data were combined and analyzed for people aged 65 and older. In the BRFSS, the prevalence of diabetes among people aged 65 and older was 12.6%, which was almost the same as national average (12.7%, 1998 data). The racial disparities in rates had the same pattern in BRFSS data as in Medicare data. However, prevalences by race and sex from BRFSS data were only approximately 43%–61% of those from Medicare data.

**CONCLUSION:** Both BRFSS and Medicare data show a high prevalence of diabetes and similar patterns of racial disparities in diabetes prevalence among people aged 65 and older in SC. However, the prevalence of diabetes among elderly persons may be underreported in BRFSS.

**LEARNING OBJECTIVE:** Participants should better understand the difference in diabetes prevalence rates derived from BRFSS data and those derived from Medicare data and be able to explain the discrepancy.

# 8

SESSION

WEDNESDAY  
FEBRUARY 27  
5:00 PM

## Use of Arthritis Services in Illinois: Comparison of Arthritis Foundation Profiles with BRFSS Data

M. Getz, H. Chang, K. Peters

**OBJECTIVE:** To examine differences between demographic profiles of persons attending education and self-management programs sponsored by the local Arthritis Foundation and similar profiles derived from the Behavioral Risk Factor Survey System (BRFSS).

**SETTING:** Eliminating disparities in receipt of arthritis-related services is a goal of *Healthy People 2010*. Illinois BRFSS data suggest that fewer than half of respondents with arthritis are receiving treatment.

**METHOD:** Demographic profiles from the 2000 BRFSS were compared with similar demographic profiles generated from two surveys constructed for Illinois Arthritis Foundation chapters. Comparative assessments included those for age, sex, racial/ethnic background, employment status, and current symptoms/level of disability.

**RESULTS:** Prevalence of arthritis can be calculated using one of two variables from the BRFSS—presence of arthritis symptoms in the last 12 months or physician-diagnosed arthritis. Using the former criteria, we found that persons attending both arthritis programs were older and more likely to be female and retired than those in the BRFSS. Using the second criteria, we found that persons enrolled in arthritis programs were more likely to be female and retired than those in the BRFSS.

**CONCLUSIONS:** Results suggest a need for more services and systematic focusing of these community-based arthritis programs to target underserved groups to lessen disparities in use of these services.

**LEARNING OBJECTIVE:** Participants will understand the utility of BRFSS data for their jurisdictions and be encouraged to collect and analyze local data to better assess complex public health issues such as arthritis.



## Kool, Kalm, and Addikted: African Americans and the Menthol Cigarette Hook

L. Pederson, R. P. Griffith

C-SESSION

THURSDAY

FEBRUARY 28

8:30 AM

**OBJECTIVE:** This presentation is designed to offer the latest findings in the qualitative and quantitative research by the Office on Smoking and Health (OSH) on African Americans' preferences toward menthol cigarettes and the industry's marketing strategies for reaching this population. In addition, OSH presenters will provide recommendations for science-driven, policy-oriented strategies to reduce tobacco use in this population, and a discussion of potential community mobilization activities aimed at reducing aggressive retailing of tobacco products on and near college campuses.

**SETTING:** Data indicate that African Americans are disproportionately subject to many chronic disease conditions, all of which are significantly exacerbated by tobacco use. While it is widely known that this population prefers menthol tobacco products, less is known about the reasons why.

**METHOD:** OSH sponsored a series of focus groups of African American smokers in 2001. The research design and process focused on initiation, practices used in marketing menthol products to this population, and attitudes toward cessation.

**RESULT:** This presentation will offer the latest findings in CDC's research on menthol cigarettes. Presenters will offer recommendations on how multiple chronic disease prevention initiatives can work together with tobacco prevention to effectively reduce the gap in health risks shouldered by the African American population.

**LEARNING OBJECTIVE:** Participants will be able to describe the latest findings on African Americans' preferences for menthol cigarettes and the tobacco industry's marketing strategies for reaching this population.

# Prevalence of Selected Cardiovascular Disease Risk Factors Among Asian Indian Immigrants in New Jersey

R. Misra, T. Patel, D. Caputo, S. Parikh

**OBJECTIVE:** To determine the prevalence of selected cardiovascular disease risk factors among Asian Indian immigrants in New Jersey.

**SETTING:** Asian Indians have a much higher prevalence of cardiovascular disease (CVD) than other Asian populations and non-Hispanic whites. Risk factors for CVD frequently occur in clusters and may increase CVD risk multiplicatively. This study reports the prevalence of risk factors for CVD (hypertension, current cigarette smoking, high cholesterol, obesity, and diabetes) among immigrant Asian Indians.

**METHOD:** Analysis was based on responses to questions from the Behavioral Risk Factor Surveillance System. Information was collected by face-to-face interviews by trained interviewers at health fairs/workshops in Edison County, New Jersey. A total of 110 surveys were completed.

**RESULTS:** Approximately 24% of participants reported that they had hypertension, 16% were current smokers, 35% had high cholesterol, 13% were obese, and 26% had diabetes. Forty percent of respondents reported no CVD risk factors, 39% reported one, and 21% had  $\geq 2$  risk factors. The prevalence of having  $\geq 1$  CVD risk factor(s) did not differ by sex but increased with age. The prevalence of having  $\geq 2$  CVD risk factors was higher among respondents who reported their health status as fair/poor compared with those who reported it as good to excellent.

**CONCLUSION:** The percentages of multiple CVD risk factors among Asian Indians highlight the importance of enhancing primary prevention activities among Asian Indian communities.

**LEARNING OBJECTIVE:** Participants should be able to list the CVD risk factors and describe prevalences of CVD risk factors among Asian Indians.

# 9

SESSION

THURSDAY

FEBRUARY 28

8:30 AM

## BIEN!: A Partnership in the U.S.–Mexico Border Region Using the Internet to Improve Community Health

T.W. Wilson

**PURPOSE OF THE PROGRAM:** To provide and promote computer access to free, bilingual health information via the BIEN! Web site.

**SETTING:** The Border Health Information and Education Network (BIEN!) is a partnership of 17 organizations in three southern New Mexico counties bordering Mexico. Partners include public health agencies, academic and public libraries, hospitals, and health clinics. The population is 65% Hispanic, with high rates of diabetes, asthma, and chronic lung disease, and the region is medically underserved.

**INTERVENTIONS:** Partners conducted a needs assessment among residents to guide these formative program objectives: select computer sites; develop a Web site; create health information centers; train partners; and design marketing materials to increase awareness of BIEN!

**OUTCOMES:** Formative objectives were attained. Each partner offers free BIEN! Web site access and user training on dedicated computers located in public areas. Users completed online evaluations of the Web site, and marketing materials were produced and distributed. Evaluation is ongoing, as program objectives shift from formative-based among partners to outcome-based among users. User characteristics are tracked online to inform marketing efforts and update Web site content.

**CONCLUSIONS:** BIEN! partners provide and promote access to accurate, bilingual, Internet-based health information. Program effectiveness is being evaluated using process and outcome methodologies within a utilization-focused framework.

**LEARNING OBJECTIVES:** Participants will be able to identify a strategy for designing, implementing, and marketing an Internet-based health information program for the medically underserved; describe methodologies to collect data for developing culturally appropriate, Internet-based health information programs; and evaluate methods for developing community health improvement programs through new partnerships.

# The Massachusetts Community Health Worker Network

D. Fox, P. McBurnie

**PURPOSE OF THE PROGRAM:** To empower community health workers (CHWs) to promote health in our communities, reduce the incidence of chronic disease (CD), and contribute to eliminating health disparities among racial and ethnic communities.

**SETTING:** The Massachusetts Community Health Worker (MACHW) Network Steering Committee, comprising primarily CHWs, provides leadership, and the general membership of over 600 is composed of CHWs and partners from across Massachusetts, including the March of Dimes, Health Care For All, AHEC/Community Partners, Community Health Education Centers, and the Massachusetts Department of Public Health (MDPH).

**INTERVENTIONS:** Collaborative partnerships have been forged to support ongoing statewide, regional, and local network business meetings, training modules, and networking opportunities. Legislative action has been pursued through support for the HealthNow! bill, a proposed \$.50 tobacco tax increase that includes language to financially strengthen CHWs programs.

**OUTCOMES:** The network is working to ensure that effective policy is in place to sustain CHWs; collaborative approaches are fostered to support the field of CHW; a financed MACHW Network infrastructure is solidified; professional development opportunities are accessible to all CHWs; and all CHWs are an integral part of the health care delivery system.

**CONCLUSIONS:** The network has received national recognition for its work in informing and uniting CHWs and for developing partnerships with state, private, and public agencies in working toward eliminating racial and ethnic health disparities and reducing CD.

**LEARNING OBJECTIVES:** Participants will be able to articulate new ideas for organizing CHWs, recognize barriers, identify strategies for ensuring full CHW participation in a statewide network and apply to their own work a renewed enthusiasm for the intrinsic value of CHWs.

# 10

SESSION

THURSDAY  
FEBRUARY 28  
8:30 AM

## Evaluating the Be Healthy, Be Active Campaign

C. Claybrooke

**PURPOSE OF THE PROGRAM:** To increase awareness of the moderate physical activity guidelines and to evaluate the effectiveness of a countywide campaign to promote the health benefits of moderate physical activity.

**SETTING:** The Washington State Department of Health developed and implemented a promotional campaign to promote new guidelines on the health benefits of moderate physical activity among adults in the 50–70 age range. Prior to the campaign, eight focus groups were conducted to gather input from the target audiences to develop a campaign slogan, key messages, and appropriate media channels as well as test product ideas.

**INTERVENTIONS:** A benchmark telephone survey (400 respondents) was conducted in 1999 to establish a precampaign baseline. Following the promotional campaign, a follow-up survey (538 respondents) was conducted during the same time period in 2000. The purpose of these surveys was to measure the impact of the campaign in terms of the following:

- Awareness of the new guidelines for moderate physical activity.
- Increase in perceived health benefits of moderate physical activity.
- Increase in intention to increase levels of moderate activity.

**OUTCOMES:** The campaign significantly increased awareness of the new guidelines (40%) and knowledge about specific guidelines (72% increase in mentioning of 5 days a week, 115% increase in mentioning of 30–44 minutes).

**CONCLUSIONS:** A pre- and post-test telephone survey is a cost-effective method of evaluating the impact of a physical activity promotional campaign in a targeted community.

**LEARNING OBJECTIVES:** Participants will have a better understanding of the steps involved in evaluating community-based health education campaigns and of the formative research methods used in designing an effective campaign.

THURSDAY  
FEBRUARY 28  
8:30 AM

## Determining Effective Health Communications for Rural Residents

P. Winkler, M.J. Clark, L. Straub, B. DeVore

**OBJECTIVE:** To examine preferences of rural residents (RRs) for receiving communications about health services and programs and to evaluate communication strategies of providers/agencies in serving this population.

**SETTING:** Through a collaborative approach, the Illinois Department of Public Health, Western Illinois Area Health Education Center, and the Illinois Institute for Rural Affairs designed a study to determine communication strategies for Illinois RR. An advisory committee was convened to guide development of the study.

**METHOD:** Social marketing strategies were utilized as a framework for determining communication strategies to reach Illinois RRs in small communities with limited access to health care services. Three surveys were developed to collect formative research. Consumer surveys were mailed to 1,498 Illinois RRs in communities with a population of 10,000 or less. Two hundred surveys were mailed to providers/agencies serving RRs. Survey results were used to guide four focus groups throughout the state.

**RESULTS:** Newspapers and television are the major modes through which 70% of residents are made aware of health information. According to 79% of respondents, physicians had the most influence over their health care decisions. Over half of the respondents search for information through the Internet.

**CONCLUSIONS:** This information will be utilized to guide preparation of chronic disease prevention and treatment strategies for RRs. It is anticipated that development of more effective communication will benefit this population.

**LEARNING OBJECTIVE:** Participants should have a better understanding of how to develop formative research that helps RRs maintain good health and that helps health care providers and agencies better serve this constituency.

# 10

SESSION

THURSDAY

FEBRUARY 28

8:30 AM

## Evaluation Study of Latino-Specific Social Marketing Activities

D. Backman, R.S. Armijo

**PURPOSE OF THE PROGRAM:** The California Latino 5 a Day Campaign conducts social marketing interventions to encourage Latino adults to consume 5 or more daily servings of fruits and vegetables.

**SETTING:** From June through September 2000, the campaign conducted a quasi-experimental study to determine whether its mass media, festival, farmers/flea market, and retail interventions improve the fruit and vegetable intake and related behavioral determinants of Latino adults.

**INTERVENTIONS:** A sample of 944 Latino adults was recruited to participate in the study. Participants residing in Fresno, California, received a 4-month exposure to Spanish and English television and radio advertisements, bilingual mobile billboard advertisements, bilingual spokespeople interviews on electronic and in print media, and festival, farmers/flea market, and retail interventions. Participants in Riverside/San Bernardino, California, received no intervention. Telephone interviews were conducted before and after the intervention period in the two communities to measure changes in fruit and vegetable intake and related behavioral determinants.

**OUTCOMES:** Preliminary results suggest that the intervention was successful in significantly increasing fruit and vegetable intake of Spanish-language-dominant Latinos in Fresno. Additional findings will be forthcoming pending the completion of data analysis.

**CONCLUSIONS:** The findings and recommendations generated from the study will guide the development of future campaign activities and may provide direction for other public health programs targeting similar Latino communities.

**LEARNING OBJECTIVE:** At the end of the session, participants will be able to describe how mass media, community, and retail interventions influence the fruit and vegetable intake and related behavioral determinants of Latino adults in California.

# Evaluating Media Advocacy Efforts Addressing Fast Food in California Public High Schools: A Content Analysis

*E. Takada, P. Agron*

**PURPOSE:** To evaluate the effectiveness of media advocacy efforts using content analysis.

**SETTING:** Media advocacy was used to address the problem of the high prevalence of fast food in California high schools, which may be contributing to the rise in childhood obesity. One of the main components of the media advocacy efforts was a press event that strategically used the media as a channel to (1) bring forth the issue of fast food's prevalence to policymakers and parents, (2) tell policymakers and parents why they should be concerned, and (3) create a movement that supports policy and environmental changes that increase access to healthy foods.

**METHOD:** These efforts were evaluated by conducting a media content analysis of print media only (N=52). A 22-item coding instrument was designed, and two independent readers each read and coded all articles. An interrater reliability test was also conducted.

**RESULTS:** Kappa>0.75 for 16 variables; k=0.40–0.75 for variables. Only 6 variables yielded a k<0.40. Print coverage reached >26,584,800 readers in California. Sixty-seven percent of the articles localized the fast food issue, 69% specifically identified causes of the high prevalence of fast food in high schools, 73% used specific data from the Fast Food Survey, and 81% discussed recommendations and solutions to the fast food problem.

**CONCLUSION:** This evaluation demonstrated that the press event objectives were met and that the news media successfully and effectively communicated the issue of fast food in high schools statewide, which led to desirable policy outcomes and especially had an impact locally throughout California.

**LEARNING OBJECTIVE:** Participants will learn detailed content analysis methodology and how it is an effective evaluation tool for media advocacy.

# 11

SESSION

THURSDAY

FEBRUARY 28

8:30 AM

## Bells for Remembrance: Building Community Partnerships for Breast Health Awareness

D. Manheim, N. Blakeney, J. Borchardt

**PURPOSE OF THE PROGRAM:** Bells for Remembrance is a public awareness program conducted in congregations to promote the importance of breast cancer screening. The program disseminates breast health information and resources in faith-based settings.

**SETTING:** Community partners developed committees to plan and conduct educational kick-off events. Regional communities were identified to target medically underserved audiences. The Breast Health Connection of Georgia (BHCG), a statewide coalition including service providers, advocates, nonprofit organizations, and the National Cancer Institute's Cancer Information Service (CIS) supported community steering committees.

**INTERVENTIONS:** Nine regional kick-off events were conducted to prepare community "Champions" to conduct congregation-based educational sessions on breast health. The CIS partnered with BHCG to participate in regional committees and access NCI mammography materials for distribution to the congregations. Committee chairs completed self-administered questionnaires to assess the group's organizational capacity to plan and implement kick-off activities.

**OUTCOMES:** Between March and May 2001, 382 participants, representing 268 congregations in Georgia, attended the kickoff events, subsequently reaching over 280,000 people statewide. Using a Likert scale, from 1 (not successful at all) to 5 (extremely successful), steering committee chairs indicated the perceived level of success in planning and implementing the kickoff event was 3.7.

**CONCLUSIONS:** Communities vary in their capacity to plan, implement, and evaluate faith-based education programs. Successful community partnerships can help maintain sustainability of ongoing breast cancer awareness activities in congregations.

**LEARNING OBJECTIVE:** Participants will be able to describe the process of developing innovative community partnerships and the methods used to assess successful collaborative programming.

# Screening for Cardiovascular Disease Risk Factors Among Blacks, Latinos, and Whites from Four Chicago Communities

J.M. Jurkowski, S.R. Levy

**OBJECTIVE:** Examine the effects of age, health care access, acculturation, and socioeconomic status on differences in cardiovascular disease (CVD) risk factor screening among Latinos, blacks, and whites.

**SETTING:** National Behavioral Risk Factor Surveillance System (BRFSS) data show Latinos are less likely to be screened for CVD risk factors. Four Chicago communities with predominantly Latino and black populations were administered a modified BRFSS survey. More research is needed to understand effects of age, acculturation, and socioeconomic status on differences among racial groups.

**METHOD:** We used probability sampling to obtain a sample size of 819. The survey included demographic, health care access, and health behavior questions. An acculturation scale was created from three variables: language of interview, place of birth, and years lived in the United States.

**RESULTS:** Latinos were less likely to have recently been screened for CVD risk factors. Only 75% of Latinos had their blood pressure taken in the past year, compared with 92% of blacks and 93% of whites. Latinos (40%) were less likely than blacks (66%) or whites (88%) to have ever had their cholesterol checked. Only 51% of Latinos had ever had a diabetes test, compared with 69% of blacks and 72% of whites. Latinos tended to be younger, less acculturated, and less likely to have health insurance.

**CONCLUSION:** Latinos were less likely to have been screened for CVD risk factors than blacks and whites. Age, acculturation, and health care access explain some of the differences among the racial/ethnic groups.

**LEARNING OBJECTIVE:** Participants will learn how the BRFSS can be used to monitor racial/ethnic differences in CVD risk factor screening to understand underlying factors associated with self-reported screening behaviors.

# 11

SESSION

THURSDAY  
FEBRUARY 28  
8:30 AM

## Successful Strategies for Breast and Cervical Cancer Screening Among American Indian and Alaska Native Women

*C. Orians, P. Lantz, E. Liebow, J. Joe, L. Burhansstipanov, J. Erb, L. Mercier*

**OBJECTIVE:** To identify successful strategies used by tribal organizations to deliver breast and cervical cancer screening services to native women.

**SETTING:** Breast and cervical cancer rates have increased in recent decades among native women, and survival rates are poor. In 1993, the Centers for Disease Control and Prevention (CDC) added the American Indian/Alaska Native Initiative to its National Breast and Cervical Cancer Early Detection Program. Currently, the initiative directly funds 12 tribal organizations to deliver comprehensive early detection services.

**METHOD:** Five tribal programs took part in ethnographic case studies using a participatory research approach. The remaining programs were canvassed using semi-structured interviews. Research questions focused on strategies used to meet outreach, screening, and administrative challenges during the start-up of programs and their transition to sustained service delivery.

**RESULTS:** A number of successful strategies were identified for public education, professional education, service provision, tracking/follow-up, and partnership/coalition development. Service delivery models vary to reflect the number of tribes served by the program, the size of the geographic area over which the service population is distributed, and the health care delivery context of tribal health services.

**CONCLUSION:** Tribal early detection programs can have a positive impact on screening utilization. CDC resources and support are important, although policies designed for state health department programs need modification for tribal settings. Removing financial barriers is necessary but not sufficient for increasing cancer screening in native populations. Cultural competence and attention to distinct organizational barriers are among the major keys to the success of this initiative.

**LEARNING OBJECTIVES:** To describe different models for delivering cancer screening services to native women and to distinguish strategies for successful program start-up from strategies for transitioning to sustained service delivery.

# Characteristics of Men Diagnosed with Prostate Cancer by Screening and Case-Finding: The Prostate Cancer Outcomes Study

N. Stone, D. Espey, R. Hoffman

**OBJECTIVE:** To compare demographics, socioeconomic status (SES), clinical characteristics, and health status for men with screening-detected (asymptomatic) prostate cancer (CaP) with those for men with CaP with benign prostatic hyperplasia (BPH) or constitutional symptoms.

**SETTING:** The Prostate Cancer Outcomes Study, which examined a population-based cohort of men diagnosed with CaP between October 1994 and October 1995 who were listed in six Surveillance, Epidemiology, and End Results (SEER) cancer registries.

**METHODS:** Baseline data were obtained from patient surveys and medical record reviews. Three patient groups were identified: those who were asymptomatic on screening (S), those with symptoms of benign prostatic hyperplasia (BPH), only, and those with constitutional symptoms including bone pain, weight loss, and hematuria (not screening: NS). Comparisons between groups were made with weighted chi-square tests using SUDAAN.

**RESULT:** Among 3,173 subjects, 31% were S, 58% BPH, and 11% NS. Screened patients were more likely than BPH and NS patients to be non-Hispanic white (80%, 75%, 65%, respectively), younger (65 years, 68, 69), more highly educated (38% college graduates, 34%, 29%), and to earn higher income (51% >\$40K, 38%, 27%). Screened patients were more likely to have no comorbidity (42%, 36%, 32%), have early-stage disease (93%, 89%, 76%) and rate their overall health status as excellent (23%, 15%, 10%). All comparisons were significant at  $P<0.001$ .

**CONCLUSION:** Men with screening-diagnosed cancers were younger, had higher socioeconomic levels, better health, and earlier-stage disease than men diagnosed with CaP who had either BPH or constitutional symptoms.

**LEARNING OBJECTIVE:** Participants should be able to describe the association between demographic, clinical, and health status variables and screening history for men with CaP.

# 12

SESSION

THURSDAY

FEBRUARY 28

1:30 PM

## Impact of Environmental and Policy Factors on Nutrition Behavior

N.H. Kabeer, E.J. Simoes, A.D. Deshpande, B. Waterman

**OBJECTIVE:** To determine the relationship between environmental and policy factors and consumption of heart-healthy foods.

**SETTING:** Cardiovascular interventions may benefit from understanding a community's perception of available policies and environmental factors.

**METHOD:** A cardiovascular disease (CVD) "Special Survey," administered to targeted communities exhibiting high CVD rates ( $n=2,821$ ), assessed respondents' perception of environmental factors conducive to a heart-healthy lifestyle. We conducted logistic regression analysis to assess the independent relationship between these factors and actual consumption of 5 or more (5+) fruits and vegetables (F&V) a day.

**RESULT:** Being older than 40 years and having a higher education level were positively associated with consumption of 5+ F&V a day. Males, African Americans, current smokers, and obese individuals were all less likely to be consuming 5+ F&V a day than their respective references. Those individuals who perceived that all or many restaurants offered healthy choices on their menus ( $OR=1.44$ , 95% CI 1.10-1.97) and those who perceived that health information was available in their communities ( $OR=1.44$ , 95% CI 1.19-1.73) were more likely to consume 5+ F&V a day.

**CONCLUSION:** Policy and environmental initiatives to increase the number of items provided on restaurant menus and ensure that more educational materials on healthy eating are provided in communities may have an impact on an individual's nutrition behavior.

**LEARNING OBJECTIVES:** Participants should be able (1) to describe what environmental factors are conducive to consumption of 5+ F&V a day, and (2) to apply this information to develop environmental and policy changes conducive to a heart-healthy lifestyle.

# 12

SESSION

THURSDAY

FEBRUARY 28

1:30 PM

## Local Physical Activity and Nutrition Coalitions: Creating Liveable, Healthy Communities

J. Newkirk, C. Thomas

**PURPOSE OF THE PROGRAM:** To provide overview of organizational structures, activities, and outcomes of local physical activity and nutrition coalitions (LPANs) as well as state support and capacity-building efforts.

**SETTING:** The North Carolina initiative to create and support LPANs fosters the development of local partnerships in traditional and nontraditional settings (e.g., among health professionals, county planners, schools, transportation officials, faith leaders, and community members). Local coalitions are supported by state-level partnerships and are part of a comprehensive strategy to increase physical activity and healthy eating among the citizens of North Carolina.

**INTERVENTIONS:** LPANs, working through policy and environmental approaches, may initiate and/or coordinate local programs and interventions to increase community opportunities for physical activity and healthy eating. LPANs can assess, identify, and target needs as well as create change on a community level. The strength of the LPAN is inherent in its ability to bring diverse groups together to focus on common needs and issues.

**OUTCOMES:** Local physical activity and nutrition coalitions have successfully created policy and environmental changes in multiple settings. These include but are not limited to community trails, greenways, school nutrition policies, county sidewalk ordinances, and work-site stairwell initiatives.

**CONCLUSIONS:** LPANs are successful agents of community-level change and partnerships to increase physical activity and nutrition opportunities through policy and environmental approaches.

**LEARNING OBJECTIVES:** Participants will be able to identify methods of community partnership, describe the benefits of policy and environmental approaches to increasing physical activity and healthy-eating opportunities, and recognize state support measures.

# 12

SESSION

THURSDAY

FEBRUARY 28

1:30 PM

## Institutionalizing Comprehensive State Nutrition and Physical Activity Programs

D. Ramsey, J. Collins, W. Dietz

**PURPOSE:** To define the mission, objectives, program components, and structure of state comprehensive nutrition and physical activity programs.

**SETTING:** Recent funding for nutrition and physical activity programs, with a central focus on obesity, has spurred interest about how nutrition and physical activity can be institutionalized within the health department environment and intersect with other disease-and population-specific programs.

**INTERVENTIONS:** Several assessments of the organizational fit for nutrition and physical activity programs have been undertaken. These include (1) site visits by Centers for Disease Control and Prevention (CDC) staff to five state health departments to review organization and other characteristics and obtain views of senior managers; (2) surveys of physical activity, nutrition, and 5 A Day programs in several state health departments to gain additional information about program and staffing needs; (3) a dedicated meeting of state health department managers, some state partners, and CDC representatives to discuss the mission, objectives, components, and structure of nutrition and physical activity programs within the health departments; and (4) follow-up efforts from the dedicated meeting.

**OUTCOMES:** A report of the site visits has been completed, describing common patterns and differences in the structure and function of health departments. Surveys have been analyzed; results indicate a desired emphasis on training, partnering, and capacity building. A summary from the dedicated meeting describes a growing consensus on comprehensive nutrition and physical activity program development. Follow-up efforts with state health departments have focused on consensus and building linkages among programs.

**CONCLUSIONS:** Although some continued exploration and discussion is required, agreement is emerging on the design and structure of comprehensive nutrition and physical activity programs in states and how nutrition and physical activity programs should be linked with other health department programs.

**LEARNING OBJECTIVES:** Participants should (1) be able to identify major issues faced when new programs are introduced into an organizational public health environment; (2) gain knowledge of the views of state health departments and other partners to define program objectives, components, and structure for comprehensive nutrition and physical activity programs; and (3) develop an awareness of desired elements of a comprehensive state nutrition and physical activity program.

# Guidelines for Creating Comprehensive Nutrition and Physical Activity Programs

*S. Foerster, J. Sunderlin*

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SESSION

THURSDAY

FEBRUARY 28

1:30 PM

**PURPOSE:** To describe the major recommendations in “Guidelines for Creating and Sustaining Comprehensive Programs to Promote Healthy Eating and Physical Activity.”

**SETTING:** The Nutrition and Physical Activity Working Group (NUPAWG) recently released “Guidelines for Creating and Sustaining Comprehensive Programs to Promote Healthy Eating and Physical Activity.” This document is intended for use by state health agencies for planning and developing nutrition and physical activity programs and for recognizing and creating links for nutrition and physical activity with other health department programs.

**INTERVENTIONS:** NUPAWG has released the document after more than 2 years of developmental work. The document provides an overview of the challenges in adding new programs to the existing organizational environment in health departments; develops a rationale for recommendations; provides specific examples of policies and activities to establish a vision and focus for nutrition and physical activity; and provides a list of model practices, programs, and references for users.

**OUTCOMES:** The document provides seven distinct components for creation of comprehensive nutrition and physical activity programs: (1) leadership, planning/management, and coordination; (2) environmental, systems, and policy change; (3) mass communication; (4) community infrastructure and programs; (5) programs for children and young people; (6) health care delivery; and (7) surveillance, epidemiology, and research. Comments from health departments piloting the use of the document are positive. Information will be shared with the audience.

**CONCLUSIONS:** The document has served as a vehicle for coalescing support for comprehensive nutrition and physical activity programs in states and for building linkages to other health department programs.

**LEARNING OBJECTIVES:** Participants will (1) develop awareness of the guidelines for creating and sustaining comprehensive nutrition and physical activity programs; and (2) learn how states are making use of the document to create and augment nutrition and physical activity program components.

# 13

SESSION

THURSDAY

FEBRUARY 28

1:30 PM

## Successful Health Promotion/Disease Prevention Programs for Older Adults: Creative Partnerships and Collaborations

R. Palombo, R. Greene, A. McHugh, S. Smith, A. Harris

**PURPOSE OF THE PROGRAM:** To describe models of effective health promotion programs for older adults that highlight the benefits of collaboration between the public health community and networks on aging.

**SETTING:** The Aging States Projects, a partnership between the Centers for Disease Control and Prevention (CDC), the Administration on Aging (AoA), state health departments (SHDs), and state units on aging (SUAs), conducted a needs assessment to identify effective health promotion programs, best practices utilized for older adults, and models of successful state collaborations that can be utilized by other states.

**INTERVENTIONS:** Data from the needs assessment describe the formation of collaborative relationships and the benefits, difficulties, and ultimate successes of efforts to expand health promotion activities to older adults.

**OUTCOMES:** Several successful partnerships between the aging and public health networks will be presented as models that other states might replicate. Planning, formation of coalitions, outreach, and evaluation of health promotion programs will be addressed.

**CONCLUSIONS:** The Aging States Project provides important data regarding models of successful health promotion programs for older adults implemented through public health programs and networks on aging. Elements of effective programs and best practices will be shared, strategies for fostering healthy behaviors among older adults will be identified, and creative partnerships between the public health community and networks on aging will be described.

**LEARNING OBJECTIVES:** Participants will be able to identify models of successful health promotion programs for older adults, describe elements of effective programs and best practices for older adults, and describe strategies for fostering creative partnerships between the public health community and networks on aging.

# The Role of Michigan Schools in Promoting Healthy Weight: A Remarkable Consensus Process

K. Petersmarck, E. Coke-Haller, C. Kuntzleman

**PURPOSE OF THE PROGRAM:** To reach consensus on an appropriate role that Michigan schools could play in addressing pediatric obesity.

**SETTING:** A broadly representative consensus group was called together to hammer out recommendations. The physical education consultant at the state Department of Education took the lead, working closely with the state Department of Community Health and the Governor's Council on Physical Fitness.

**INTERVENTIONS:** The consensus group met four times. The two issues that initially polarized the group were (1) the appropriateness of weighing children in the school setting and (2) the extent to which recommendations should address weight discrimination, stigmatization, and pressure for extreme slenderness. Emotionally charged issues were discussed with passion in an environment of mutual respect.

**OUTCOMES:** Consensus was achieved. The role of schools was defined as primarily a preventive one. Prevention recommendations were developed in six areas: (1) social environment, (2) physical activity environment, (3) nutrition environment, (4) physical education, (5) nutrition education, and (6) family lifestyle support. For schools wishing to move beyond prevention, clear guidelines were developed for providing support for children and families with weight concerns, including safeguards that must be in place before conducting weight screening in schools.

**CONCLUSIONS:** The sometimes painful process of achieving consensus opened the door for implementation of the recommendations.

**LEARNING OBJECTIVES:** Participants will be able to identify (1) at least three benefits of using a consensus process to develop obesity recommendations for schools, (2) key stakeholders in such a process, and (3) two philosophical issues that can be expected to generate controversy.

# 13

SESSION 13

## Engaging Diverse Stakeholders as Partners in Healthy Communities

S. Duma, J. Twiss, H. Paulsen, J. Dickinson

THURSDAY

FEBRUARY 28

1:30 PM

**PURPOSE OF THE PROGRAM:** California Healthy Cities and Communities (CHCC) supports cities and communities in developing, implementing, and evaluating community-driven programs, policies, and plans that address environmental, social, and economic determinants of health. A key strategy is to strengthen partnerships among public, private, and voluntary sectors through a participatory governance and systems approach to improve community health.

**SETTING:** Begun in 1988 as the nation's first healthy cities program, CHCC provides technical support, educational programs, and products/services to support community health improvement initiatives. CHCC has long-standing partnerships with the California Department of Health Services, local health departments, the League of California Cities, local/regional government associations, and state-level organizations with shared goals.

**INTERVENTIONS:** CHCC has partnered with over 60 cities, statewide, to promote and sustain broad-based stakeholder participation in chronic disease prevention through innovative nutrition and physical activity promotion, tobacco control, and other initiatives. CHCC incorporates and assists cities with understanding and including the *Healthy People 2010* objectives in their work plans.

**OUTCOMES:** Collaboration among community partners has increased stakeholder representation in decision-making and resource-allocation processes, which have increased the number of bike lanes/walking paths, improved access to nutritious food sources via rerouted public transportation, and banned smoking in public spaces.

**CONCLUSIONS:** The healthy cities and communities approach is effective in enhancing community health. Inclusion of broad-based stakeholders strengthens chronic disease prevention efforts among various population groups.

**LEARNING OBJECTIVES:** Participants will have an increased understanding of the healthy cities and communities philosophy and California's experience in preventing chronic disease through collaborative partnerships.

## Partnership for Better Bones: A Program for Osteoporosis Prevention

A. Eldridge, N. Bour, D. Cyzman

**PURPOSE OF THE PROGRAM:** To increase awareness and alter risk behaviors related to osteoporosis within populations served by community education providers.

**SETTING:** The Michigan Public Health Institute (MPHI) partnered with three statewide networks—local public health departments; Michigan State University Extension; and Offices of Services to the Aging—that had a ready pool of educators who could be trained for this program. The MPHI, with Procter & Gamble Pharmaceuticals, developed the standardized education program “Better Bones, Brighter Futures.”

**METHOD:** Network educators were trained to implement the standardized program or incorporate accurate osteoporosis messages into existing educational services. Trained community educators were evaluated for change in knowledge level. Based on pre/post-tests and a 3-month follow-up survey, community participants were evaluated for change in knowledge and behavior.

**RESULT:** A total of 104 community educators were trained to provide osteoporosis programs in their communities; 72% had increased knowledge. To date, 16 community programs have been conducted, resulting in a 50% increase in knowledge among community participants. Change in behavior data is currently being analyzed. Alternative methods used by educators, including the use of radio and newspapers, reached over 25,000 people.

**CONCLUSION:** Increasing the number of trained osteoporosis educators and community programs through existing networks can increase knowledge of osteoporosis and its related risks.

**LEARNING OBJECTIVE:** In review of this program, participants will learn how to use existing networks to incorporate community education into their prevention efforts.

## Inactivity-Associated Medical Expenditures Among U.S. Adults with Arthritis, 1996

C. Helmick, G. Wang

**PURPOSE:** To analyze medical expenditures among adults with arthritis by level and type of physical activity.

**METHODS:** We used the 1996 Medical Expenditure Panel Survey (MEPS) to identify 1,586 persons (aged 45 years or older) with arthritis who were not physically handicapped or unable to perform their major activities. Medical expenditures were determined from MEPS. Physical activity measures were determined from the related 1995 National Health Interview Survey. People were defined as active if they spent >2 hours on physical activity in 2 weeks regardless of exercise intensity. Using SUDAAN, we analyzed the prevalence of physical activity and compared annual medical expenditures of active with those of inactive persons, stratifying by age and sex.

**RESULTS:** About 20% of the people with arthritis did at least one activity for exercise, including walking (13.4%), gardening/yard work (9.9%), stretching (7.0%), and biking/exercise biking (3.6%). Compared with their active counterparts, inactive men in the 45–64 age group incurred \$998 more in medical expenditures and those in the >65 age group incurred \$814 more. For inactive women, these additional expenditures were \$409 and \$1,057, respectively. These inactivity-associated medical expenditures were even more striking for walkers vs. nonwalkers in the >65 age group (\$2,492 for men and \$2,403 for women).

**CONCLUSIONS:** Inactivity-associated medical expenditures among persons with arthritis are considerable. Although not all inactivity-associated medical expenditures may be amenable to physical activity interventions, the large size of inactivity-associated medical expenditures found in this study suggest that physical activity interventions—especially those involving walking—may be a cost-effective strategy for reducing the burden of arthritis.

**LEARNING OBJECTIVE:** Participants should be able to describe inactivity-associated medical expenditures by level and type of physical activity.

## A Collaborative Success: The Georgia Arthritis Report 2000

J. McGinnis, K. Powell, W. Wilson, L. Martin, H. Lytle, E. Martin

**OBJECTIVE:** To assess the burden of arthritis in Georgia and present findings in a multiuse report for the private and public sector.

**SETTING:** In 1997, the Arthritis Foundation (Georgia Chapter) and the Georgia State Health Department (Division of Public Health) formed a partnership to assess, for the first time, the prevalence of arthritis in Georgia. An arthritis epidemiologist employed by the Arthritis Foundation and supervised by the Georgia Division of Public Health was hired.

**METHODS:** The 1998 Georgia Behavioral Risk Factor Surveillance System was analyzed to determine prevalence of arthritis and describe behavioral characteristics of people with arthritis and its impact on their lives.

**RESULTS:** A new arthritis algorithm was developed by Georgia and adopted by the Centers for Disease Control and Prevention (CDC). Major findings revealed (1) 34% of Georgians reported arthritis and related conditions, (2) 68% of those with arthritis did not know their type of arthritis or condition, and (3) 77% were not under a physician's care.

These findings were presented in the *Georgia Arthritis Report 2000* through the collaboration of marketing consultants, program planners, epidemiologists, and physicians in the Georgia Division of Public Health, Georgia Chapter, and CDC.

**CONCLUSIONS:** Arthritis affects 1 of 3 adult Georgians. The *Georgia Arthritis Report* was the first-ever multiuse report of its kind to present major findings and has been used as a role model for other states, CDC, and program planners with the Georgia Arthritis Action Plan.

**LEARNING OBJECTIVE:** Participants should be able to describe major arthritis findings in Georgia and their use in a report.

## Estimating Asthma Prevalence Using the Behavioral Risk Factor Surveillance System and the National Health and Nutrition Examination Survey

M. Wu, Y. Huang, X. Zheng

**OBJECTIVE:** To assess the pattern of asthma prevalence in data from the 2000 survey of the Behavioral Risk Factor Surveillance System (BRFSS) and the third National Health and Nutrition Examination Survey (NHANES III) and compare the asthma prevalences estimated by the two systems.

**SETTING:** Asthma is one of the most common chronic diseases in the United States, and it has increased significantly in the past 20 years. Its prevalence was estimated by NHANES III, a large-scale national survey, for the first time in 2000. BRFSS data were used widely for state-level asthma prevalence.

**METHOD:** The 2000 BRFSS data with 180,244 records and the 1988–1996 NHANES III data with 19,618 records were analyzed to determine the pattern of asthma prevalence among American adults by age, race, sex, education, and region. In both data sets, asthma was defined as being diagnosed by doctor and still having asthma during the period of interview. Geographic regions were defined as Northeast, Midwest, South, and West areas by using census definition.

**RESULTS:** From the BRFSS, 7.0% American adults reported having asthma. Adults aged 18–34 years had the highest prevalence of asthma of all age groups, and the prevalence of asthma decreased with age. African Americans had the highest prevalence (8.2%) of asthma among race groups. Women were more likely to report having asthma (8.9% vs. 5.0%) than men. In addition, people with less than a high school education reported the highest prevalence of asthma (7.8%) among education categories. After adjustments for age, race, and sex, the West region had the highest prevalence rate (8.4%), and the South had the lowest prevalence rate (6.6%) of asthma. The asthma prevalence in NHANES III (5.0%) was lower than that in BRFSS (7.0%). The prevalence rates by race, sex, and education showed the same patterns in both NHANES III and BRFSS. However, the age and regional differences in BRFSS data were not observed in NHANES III data.

**CONCLUSION:** Both surveys indicated a similar pattern of asthma distribution: prevalence was higher among young adults, African Americans, and women than other groups. However, only BRFSS showed a regional difference in asthma prevalences. Asthma prevalences in BRFSS had a narrower confidence interval than those in NHANES III due to a large sample size and may be a better source for estimating asthma prevalence.

**LEARNING OBJECTIVE:** Participants should be able to estimate asthma prevalence with the BRFSS or NHANES III data and better understand the difference of these data.

# Quality of Life Among People with Asthma in the United States

M. Wu, Y. Huang

**OBJECTIVE:** To assess health-related quality of life (HRQOL) among people with asthma using asthma and HRQOL surveillance measures.

**SETTING:** To increase quality and years of healthy life is the first goal of *Healthy People 2010*. As one of the most common and costly chronic diseases, asthma causes considerable discomfort and stress in people who are affected by the disease. Few data that assess HRQOL among asthma patients exist. In 2000, for the first time, the Behavioral Risk Factor Surveillance System (BRFSS) collected data on both asthma and HRQOL from all 50 states.

**METHOD:** The 2000 national BRFSS data were analyzed to determine the HRQOL for adult asthma populations in all 50 states. Asthma was defined as both being diagnosed by doctor and still having asthma during the period of interview. HRQOL was measured by the prevalence of self-reported general health status, and the average number of days with poor physical health (PPH), and with poor mental health (PMH), physical activity limitation (PAL). In addition, a “healthy days” index was also assessed by combining PPH and PMH.

**RESULT:** Seven percent of the adults in the United States reported having asthma. After adjustments for age, sex, and race, the prevalence of fair or poor general health was higher among people with asthma (29.2%) than people without asthma (14.2%). People with asthma also had more average days of PPH (6.7 vs. 3.1 days), PMH (5.0 vs. 3.1 days), and PAL (5.7 vs. 3.6 days) than the nonasthma population. In general, people with asthma reported fewer average “healthy days” (20 days) than people without asthma (24.4 days).

**CONCLUSION:** Asthma is a threat to people’s physical and psychological well-being. The quality of life is generally poorer among people with asthma than among people without the disease.

**LEARNING OBJECTIVE:** Participants should be able to better describe the factors associated with HRQOL surveillance measures among people with asthma.

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SESSION

THURSDAY

FEBRUARY 28

3:15 PM

## Policies and Programs Related to Nutrition, Physical Activity, and Tobacco Use in U.S. Schools

*N.D. Brener, L. Kann, H. Wechsler*

**OBJECTIVE:** To provide nationally representative data on the extent to which policies and programs related to nutrition, physical activity, and tobacco use are in place in U.S. schools, school districts, and state education agencies.

**SETTING:** This presentation will report data from the School Health Policies and Programs Study (SHPPS) 2000, the most current and comprehensive study on this topic.

**METHOD:** SHPPS 2000 assessed characteristics of eight components of school health programs at the elementary, middle/junior high, and senior high school levels. Each component was assessed at the state and district levels through mail surveys of state and local education agency officials, and at the school level through on-site, computer-assisted personal interviews with school administrators, faculty, and staff. Health education and physical education also were assessed at the classroom level through computer-assisted personal interviews with teachers.

**RESULTS:** This presentation will provide national data about state, district, and school requirements for nutrition education, physical education, and tobacco use prevention education. It also will provide information about food service requirements, recommendations, and practices; physical activity program policies and practices; and tobacco-use prevention policies. The presentation also will include information about foods and beverages offered in schools, and school- and classroom-level health education and physical education curriculum and instruction.

**CONCLUSION:** Understanding the extent to which policies and programs related to nutrition, physical education, and tobacco use are in place highlights areas for improvement.

**LEARNING OBJECTIVE:** Participants should be able to describe the extent to which policies and programs related to tobacco, nutrition, and physical activity are in place in U.S. schools, school districts, and state education agencies.

# What's Happening in Schools Depends on Who You Ask: Utah's Heart Health School Survey

J. Ware, J. Librett, M. Friedrichs, K. Paras

**OBJECTIVE:** To document awareness, policies, environmental supports, and the capacity of elementary schools to address healthier choices in nutrition, physical activity, tobacco use, and faculty wellness.

**SETTING:** Before implementing Utah's Gold Medal School Initiative to promote healthier schools, 10,681 Heart Health surveys of administrators, teachers, and school food-service managers were conducted in 414 public and private elementary schools.

**METHOD:** The mail-in survey included questions on the existence, awareness of, and adherence to policies; training and curriculum needs; and food-preparation and presentation practices. Questions were grouped according to subject: tobacco, physical activity, nutrition, and faculty/staff wellness.

**RESULTS:** There were significant differences in the perceptions of the administrators compared with those of the teachers. For example: 49.2% of administrators reported the existence of a structured physical activity policy, compared with only 13.2% of the teachers. Forty-six percent of teachers were unaware of any physical activity policy or did not think there was a policy. Administrators' perceptions of adherence to policies, resources per subject area, and training needs all were more optimistic than those of teachers.

**CONCLUSION:** Although policy and environmental supports, resources, and capacity are critical in making healthy choices available in schools, their mere existence will not result in healthier schools until they are utilized and communicated regularly to the entire school community: administrators, faculty/staff, students and parents.

**LEARNING OBJECTIVE:** Participants will learn a method for identifying potential barriers to healthier school environments and be able to describe possible implications for intervention.

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SESSION

## Assessment of Asthma Policies and Programs in Arizona Schools

V. Bettegowda, E. Viera Negrón, M. Krenitz

THURSDAY

FEBRUARY 28

3:15 PM

**OBJECTIVE:** To examine asthma policies, protocols, and education programs in Arizona schools.

**SETTING:** Asthma is among the 10 leading chronic conditions causing restricted activity and is responsible for 10 million missed school days. To promote consistent policies regarding asthma management, treatment, and education at the state level, we obtained baseline data on school asthma policies and programs.

**METHOD:** A survey was conducted among administrative and school health staff at public and charter schools in Arizona. Surveys were mailed to a random sample of 671 elementary schools and a census of 452 high schools in spring 2001. The questionnaire consisted of 36 close-ended questions on school health personnel available, asthma medication/treatment protocol, interventions, physical activity, and educational programs and resources.

**RESULTS:** The response rate was 68% among elementary schools and 56% among high schools. Seventy-seven percent of respondent schools were public and 22% were charter. The total asthma prevalence among children attending school was 7.6%. Twenty-four percent of schools do not allow students to carry asthma medications. Eighty percent make students go to the school nurse to access medications and 14% make them go to the principal's office. Twenty-one percent of schools offer asthma education programs at school.

**CONCLUSION:** Survey findings indicate a lack of standardized procedures and the need for promotion of school asthma management guidelines and available resources.

**LEARNING OBJECTIVE:** Participants will be able to describe the variability in school protocols and programs to promote effective asthma control and management.

# Coordination of a Network to Identify Innovative Approaches to Obesity Prevention

S.M. Davis, L. Cunningham-Sabo, S. Pareo

**OBJECTIVE:** To develop and coordinate an obesity prevention network of prevention research centers (PRCs) and state departments of health, in close collaboration with the Centers for Disease Control and Prevention (CDC).

**BACKGROUND:** The Obesity Prevention Network (OPN) is charged with contributing to public health prevention and control efforts toward obesity and other chronic diseases through identification of innovative approaches. The Coordinating Center's role includes guidance of vision and collaborative development of OPN agenda and procedures, coordination of members' contributions, logistical coordination of communication and information sharing, collaboration with key CDC staff, and accountability for network accomplishments.

**METHODS:** After an initial conference call and meeting, OPN priorities were determined and communication strategies established. Priorities include establishing an inclusive environment for effective and consistent participation of PRCs and state partners, providing technical assistance to state partners, and developing white papers and other forms of written recommendations from work group and general OPN activities. Strategies for communication include conference calls, generation and maintenance of a listserv, and meetings.

**OUTCOMES:** Seven PRCs were funded to form the OPN core. Several other PRCs joined voluntarily, as have state partners with funded obesity prevention programs. All partners have participated consistently and productively. Two work groups focus on comprehensive surveillance approaches and determinants of energy imbalance. Both have been successful in obtaining additional support for planned activities. Mechanisms for assessing the work group and network processes will be described.

**CONCLUSION:** With modest funding but with the support and commitment from all partners, the OPN Coordinating Center can effectively coordinate and lead a network of diverse and dispersed partners.

**LEARNING OBJECTIVES:** Participants will be able to identify key activities and approaches to effectively coordinate a network of diverse and dispersed partners.

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SESSION

THURSDAY

FEBRUARY 28

5:00 PM

## Insights into Effective Research/Practice Partnerships Following the Texas Tobacco Settlement

*N. Gottlieb, L. McMorris, G. Sneden*

**OBJECTIVE:** To examine a statewide tobacco partnership comprising academic researchers and state health department practitioners.

**SETTING:** Using tobacco settlement funds, Texas began an ambitious pilot initiative for tobacco education, prevention, and control in fall 1999. Working under a compressed timeline, plus numerous legislative and bureaucratic constraints, the multidisciplinary group from eight universities and the Texas Department of Health nevertheless successfully completed initial programmatic and evaluation efforts by fall 2000.

**METHOD:** This case study involved in-depth, one-on-one interviews with 23 project partners. Key questions concentrated on respondents' experiences of working within a large, multifocused group; personal perspectives on the collaborative process; critical incidents; strengths and limitations of the pilot initiative; and lessons learned.

**RESULTS:** The data indicate that developing a sense of cohesiveness and coordination; balancing interpersonal issues with task completion; promoting consistent, open communication; and appreciating others' contributions were important in the functioning of the Texas partnership. Although there were numerous difficulties throughout the initial stages of the pilot, ultimately members' commitment to the project and to reducing tobacco's impact enabled the group to reach effective levels of working together.

**CONCLUSION:** Certain aspects of state-level public health initiatives may be outside the control of researchers and practitioners (e.g., legislative mandates, bureaucratic restrictions). Thus, it is imperative for partners to intentionally manage the aspects of the project that can be addressed.

**LEARNING OBJECTIVE:** Participants should be able to identify key factors and strategies that promote effective partnerships among academic researchers and public health practitioners.

# Application of Conceptual Tools to University/Public Health Department Partnerships

B.D. Sharp, H. Cooper, E. Howse, J.A. Neiner

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SESSION

THURSDAY

FEBRUARY 28

5:00 PM

**PURPOSE OF PROGRAM:** University/public health department partnerships, while seemingly having parallel goals, can have divergent objectives (legislative mandate vs. academic research). Using conceptual tools allows partners to examine the partnership from both sides to minimize barriers to each partner's success.

**SETTING:** Conceptual tools can be used by either the public health department or the university partners.

**INTERVENTION:** Working with university partners, the Texas Department of Health has been able to develop, implement, and disseminate a highly successful statewide community-level intervention aimed at youth who are ticketed for using or possessing tobacco. As the partnership grew, the incorporation of the university-developed program into the health department has caused some friction between the partners, which could have had devastating results to both parties. By applying the conceptual tools of system archetypes and scenario planning in the planning stages, many of the potential pitfalls were avoided, producing positive results in which both partners' needs are met.

**OUTCOMES:** Recognizing potential problems early allows partners to focus on positive steps toward meeting their specific objectives, strengthening both the partnership and the relationship between the partners.

**CONCLUSION:** Strong university/public health department partnerships can be a very valuable tool to both partners; however, care must be taken to ensure that one partner's actions do not undermine the other partner's goals.

**LEARNING OBJECTIVES:** Participants should be able to describe the application of conceptual tools in a partnership situation and understand how they can be used to strengthen the partnership.

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## Evaluating and Strengthening a Public Health/Academic Partnership: Contractual Integration of Research, Policy, and Practice

*J. Jackson-Thompson, B.R. Malone, E.A. Balas*

**PURPOSE:** To increase the quality, quantity, and availability of chronic disease data and promote the vision of healthier people in healthier communities through evaluation and revision of a multiyear contract between a state health department and an educational institution.

**BACKGROUND AND SETTING:** During the 1990s, implementation of a comprehensive chronic disease surveillance plan created a demand for services that could not be met within the existing structure of the Missouri Department of Health (MDOH). In 1999, MDOH strengthened an existing partnership by outsourcing Behavioral Risk Factor Surveillance System (BRFSS) and Missouri Cancer Registry (MCR) operations through a 3-year outcome-based contract with the University of Missouri–Columbia (MU).

**ACTIVITIES:** Early in contract year 3, we reviewed the contract and contract monitoring reports, strategic planning/programmatic needs, and current/projected funding. We sought the opinion of MDOH's legal counsel regarding state-mandated reporting and confidentiality issues.

**OUTCOMES:** Outsourcing facilitated the hiring of additional surveillance staff, increased output, and led to national recognition for MCR as a silver standard registry. MU computer support for surveillance projects improved in year 2; BRFSS staff retention remains an issue. Further cost-saving can be realized by outsourcing additional MDOH positions and transferring responsibility for annual reports to the contract.

**CONCLUSIONS:** Outsourcing has increased MDOH's data collection and dissemination capacity. Statewide, regional, and county-level crude, age-adjusted and age-specific cancer incidence rates are available within 24 months. Statewide and regional risk-factor prevalence rates are available within 6–9 months.

**LEARNING OBJECTIVES:** Participants should be able to define an outcome-based contract and describe three advantages to a public health/academic partnership.

THURSDAY

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5:00 PM

# Determinants of Physical Activity Among Women from Diverse Racial/Ethnic Groups: The Women's Cardiovascular Health Network Project

*A. Eyler, D.M. Koffman, K. Evenson, B. Sanderson, J. Thompson,  
J. Wilbur, S. Wilcox, D. Young*

**OBJECTIVE:** To discuss personal, environmental, and cultural determinants of physical activity among women from diverse racial/ethnic backgrounds.

**SETTING:** Seven prevention research centers participated in the study of physical activity and women. The goal of this multisite project was to identify factors, particularly policy and environmental issues, that were important in influencing physical activity among ethnic/minority and low socioeconomic female populations, aged 20–50 years, with disproportionately high rates of cardiovascular disease (CVD).

**METHODS:** Both qualitative and quantitative data were collected from black, white, Latina, and American Indian women living in rural and urban environments. Forty-two focus groups were conducted and the results were analyzed to gain preliminary information to aid in development of the quantitative instrument. The quantitative survey was administered to over 1,300 women via telephone and face-to-face interviews.

**RESULTS:** Focus group results identified the social environment as an important aspect of physical activity behavior for participants. Suggestions for interventions to increase physical activity levels included involving children and families in physical activity programming; having programs at work to minimize taking time away from family; providing better access to facilities, financial support, and incentives; and improving safety in communities. More detailed information on social roles, familial influence, and social support was collected in the quantitative survey and will be presented.

**CONCLUSION:** The quantitative survey developed for this project can be used to identify mutable barriers to physical activity in communities. The survey results and the survey itself will be shared with local and state agencies to assist them in planning culturally appropriate physical activity interventions for diverse groups of women.

**LEARNING OBJECTIVE:** Participants will be able to identify at least three factors influencing physical activity behavior among diverse groups of women.

## Design of a Physical Activity Behavior Change Program for People Over 50

K. Loughrey

THURSDAY

FEBRUARY 28

5:00 PM

**PURPOSE OF THE PROGRAM:** To increase physical activity levels among people aged 50 years or older.

**SETTING:** The American Association for Retired Persons (AARP) is embarking on a multiyear, multifaceted initiative to increase physical activity levels among middle-aged and older adults. As part of this effort, AARP is first conducting a demonstration project in two communities to explore a comprehensive approach to behavior change using social marketing and communication methods.

**INTERVENTIONS:** A physical activity situation analysis, formative research, audience segmentation, and message construction research were employed to gain an understanding of how to increase physical activity levels among people older than 50. This research helped shape a physical activity demonstration site in two communities.

**OUTCOMES:** A comprehensive approach to behavior change is being tested in two communities. It will involve media, partnerships, community programming, and local advocacy. Formative work described in this presentation will shape the approach to be implemented during an 18-month period.

**CONCLUSIONS:** Formative research and segmentation analysis will result in tailored messages and programs that will be well suited to the needs of large subgroups of people older than 50 and more likely to result in behavior change.

**LEARNING OBJECTIVES:** Participants will be able to identify the needs of middle-aged and older adults in designing a physical activity or other health promotion program for people over 50. They will also be able to identify key action steps for developing similar social marketing programs.

# Promoting Physical Activity Among People with Arthritis: Key Formative Research Findings

T. Brady, K. Harben, J. Sniezek

**OBJECTIVE:** To identify key communication characteristics necessary for an effective communications campaign promoting physical activity among people with arthritis.

**SETTING:** The benefits of increased physical activity, including improved general health and arthritis symptom reduction, are well documented. People with arthritis (PWA), however, have higher rates of inactivity than people without arthritis.

**METHOD:** Extensive formative research was conducted to shape a physical activity campaign for PWA in lower socioeconomic status (SES) groups: 3 sets of focus groups (29 total), 42 in-depth interviews (24 with PWA, 18 with primary care providers [PCPs]), a market research survey, a literature review, and a review of media coverage.

**RESULT:** Five key findings emerged from this formative research: (1) PWA in lower SES groups prefer nonpharmacologic treatment for arthritis; PCPs believe patients prefer medication; (2) a physical activity message is consistent with previous beliefs of PWA, the public, and PCPs, but detailed instruction on how to be more physically active is rarely provided in the clinical setting; (3) PWA do not seek out arthritis information but welcome it when they encounter it; (4) pain is the predominant motivator for physical activity and other self-management activities; (5) barriers to physical activity include limited time and beliefs such as “I don’t need it yet” and “It does not help.”

**CONCLUSION:** These key findings have been useful in shaping the Centers for Disease Control and Prevention’s physical activity campaign: *Physical Activity. The Arthritis Pain Reliever*. These findings also can inform the development of other physical activity interventions for PWA as well.

**LEARNING OBJECTIVE:** Participants will be able to discuss key qualitative findings useful in shaping physical activity messages and materials for people with arthritis.

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SESSION

THURSDAY

FEBRUARY 28

5:00 PM

## Promotion of Walking in Rural Minority Communities

*R. Brownson, R. Housemann, S. Bacak, E. Baker, T. Bonner, R. Boyd, N. Caito, M. Kanu, F. Motton, C. Pulley, T. Schmid, D. Walton*

**PURPOSE OF PROGRAM:** To increase walking and trail use in African American communities in rural southeast Missouri.

**SETTING:** Seven communities in the Bootheel region of Missouri with walking trails and active community Heart Health coalitions.

**INTERVENTIONS:** The interventions are based on an ecologic framework and target multiple levels (i.e., individual, interpersonal, community). Walking clubs are being formed to create a social network of walkers, and participants are provided with tailored feedback to encourage walking. Coalitions are working with local churches to promote walking, use of the trails, and other positive health behaviors. The physical environment for walking in the intervention communities was modified by building new trails and improving existing trails.

**OUTCOMES:** Walking clubs have been formed in all intervention communities (at least two in each), and we have recruited over 200 participants into the intervention. Meetings with church leaders indicated a high level of support in creating church-based programs to promote walking. Two new trails are under construction, and existing trails are undergoing improvements. Installation of a card reader and infrared counter is underway at two trails. Data collected via the card reader/counter system will be used for feedback to participants and to monitor overall trail use.

**CONCLUSIONS:** Efforts to promote walking should be employed at multiple levels of an ecologic framework.

**LEARNING OBJECTIVES:** Participants will (1) understand the process of trail development in rural communities and (2) be exposed to innovative approaches to the promotion and evaluation of trail use.

## Oral Health Survey of Third-Grade Students—New Hampshire, 2001

A. Williams, H. Saltmarsh, N. Martin, A. Pelletier

**OBJECTIVE:** Establish baseline data in New Hampshire using indicators in the National Oral Health Surveillance System (NOHSS).

**SETTING:** Dental decay is the most common chronic disease of childhood. *Healthy People 2010* objectives are to reduce the proportion of children aged 6–8 years with a history of dental decay to 42% and the proportion with untreated decay to 21%, and to increase the proportion of children aged 8 years with dental sealants to 50%.

**METHOD:** Public elementary schools were selected with probability proportional to size. A third-grade class in each school was selected randomly; all students in that class were eligible to participate. Children with parental consent received a brief noninvasive oral examination using the Basic Screening Survey protocol.

**RESULTS:** We screened 410 students in 26 schools. Overall participation rate was 78%. Fifty-two percent (95% confidence interval [CI] 45.4%–58.5%) of children had a history of dental caries; 21.7% (95% CI 14.9%–28.5%) had untreated decay; and 45.9% (95% CI 39.7%–52.0%) had a dental sealant on  $\geq 1$  permanent molars. Among children screened, 69.8% (95% CI 63.1%–76.4%) had no obvious dental problems; 25.1% (95% CI 19.5%–30.8%) required early care; and 5.1% (95% CI 2.6%–7.6%) required urgent care.

**CONCLUSION:** New Hampshire is approaching the 2010 targets for two of three oral health objectives. Continued efforts to promote water fluoridation and expand sealant use are needed to decrease dental decay.

**LEARNING OBJECTIVE:** Participants will be able to describe three measures of NOHSS that are specific to children and the corresponding *Healthy People 2010* objectives.

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SESSION

THURSDAY

FEBRUARY 28

5:00 PM

## Population Assessment of Healthy Days: Exposing the Hidden Burden of Chronic Disease and Disability

D.G. Moriarty

**OBJECTIVE:** To describe how the Centers for Disease Control and Prevention's health-related quality of life (CDC HRQOL) surveillance measures and data can be used to characterize the population burden of chronic disease.

**SETTING:** The CDC HRQOL "Healthy Days" data acquired in the Behavioral Risk Factor Surveillance System (BRFSS) have been effectively used by health agencies to describe the physical and mental burden of adult populations. Most analyses have compared the mean unhealthy days and percentages of populations affected by particular levels of health.

**METHOD:** Data from 41,849 adults in 13 states, who answered the expanded set of CDC HRQOL-14 measures in the 1995–1997 BRFSS, were analyzed to estimate the overall annual population burden of unhealthy days for each state as well as the proportion of this burden attributable to reported health-related conditions that limited activities.

**RESULT:** Overall, adults reported a mean of 5.3 unhealthy days (physical or mental) during the past 30 days; the annualized HRQOL burden was estimated to be 177,000 years of unhealthy life per million adults. About 75,000 years of this burden (about 42%) was attributable to the 18% of adults who reported a current activity limitation. Those primarily limited by back or neck problems reported the highest level of HRQOL burden (18,000 years) followed by those mostly limited by arthritis (15,000 years).

**CONCLUSION:** Annualized estimates of unhealthy years are an informative and potentially useful method for characterizing the population burden associated with chronic health conditions.

**LEARNING OBJECTIVE:** Participants should be able to describe how CDC HRQOL survey data can be analyzed to characterize the population burden of chronic health conditions.

## Establishment of Assistance Centers and Community Service Projects for Alzheimer's Disease

R. Fahr, D. Hoffman

**PURPOSE OF THE PROGRAM:** To provide information and assistance to dementia patients and their families.

**SETTING:** The New York Academy of Medicine and the New York State Health Planning Commission recommended a flexible and multifaceted policy of providing information and referrals to appropriate providers. As a result of their action, the Alzheimer's Disease Assistance Centers and the Community Service Projects were developed as a basis for comprehensive and coordinated services for persons with Alzheimer's disease or other dementias and their families.

**INTERVENTIONS:** Nine Alzheimer's Disease Assistance Centers are funded to provide diagnostic testing, assessment, and care planning services for patients and their families; education and training for health care providers; and an information clearinghouse for professionals and general public. Ten Alzheimer's Disease Community Service Projects coordinate volunteer respite care and provide support and training services to Alzheimer's patients, family caregivers, health care personnel, and volunteers.

**OUTCOMES:** Centers diagnosing and managing this disease have been established and supported in nine regional locations throughout the state. Services have been provided to over 50,000 patients, caregivers, and community members.

**CONCLUSIONS:** Over 400,000 New York residents currently have Alzheimer's disease and related disorders, predominantly diseases of the elderly. New York's elderly population will significantly increase in coming years. Establishing management and support networks before the need becomes overwhelming is essential.

**LEARNING OBJECTIVES:** Participants will learn about the increasing incidence of this disease and the effect it has on patients and caregivers. Participants will also be updated on current efforts to assist both groups.

## Telephone Survey of American Indians Without Residential Phone Service, Using a BRFSS-Like Instrument in Oklahoma

M.R. Page, J. Campbell, Z. Bursac

**OBJECTIVE:** To describe the methods used to contact and recruit adult American Indians without residential telephone service to participate in a telephone-based Behavioral Risk Factor Surveillance System-like survey.

**METHODS:** Telephone ownership rates among American Indians in Oklahoma are 15%–20% lower than rates for the general population. This can potentially bias the estimates from random telephone surveys of this population. To resolve this ongoing problematic issue, (1) the Oklahoma REACH 2010 Steering Committee, consisting of 8 tribes/nations and one urban clinic, unanimously approved surveying American Indians without phone service; (2) the REACH 2010 grant provided incentive money for completing the survey; and (3) each participating Oklahoma REACH 2010 community was responsible for identifying and recruiting tribal members at a variety of settings, e.g., pow-wows and other tribal events, clinics, and through community health representatives.

**RESULTS:** At this time 325 participants have been interviewed. Each tribe/clinic used a different method of recruitment: cell phones were used in home settings and tribal events, festivities and health fairs, clinics, and Head Start Programs. Preliminary analysis suggests that the individuals contacted using this method were more likely to have a higher percentage of Indian blood, to have lower income and education, to live in rural areas, and to speak an Indian language. The individuals were also more likely to self-categorize their health as fair or poor and have serious health problems and disabilities that came in clusters.

**CONCLUSIONS:** The American Indians without phone service appear to have characteristics different from those of a random sample of American Indians with telephones. More analysis (matched pair analysis) is needed to determine if the differences are the result of the method of recruitment or the social status and lifestyle that result from lack of phone service. This method was very effective in getting people without telephone service.

**LEARNING OBJECTIVES:** Participants will be able to describe characteristics of an American Indian population without telephones and effective methods of recruiting survey participants from such populations.

THURSDAY

FEBRUARY 28

5:00 PM

# The Index of Disparity: A New Statistic for Summarizing Health Disparities

J.N. Pearcy, K.G. Keppel

**OBJECTIVE:** To compare the degree of disparity in cause of death among racial and ethnic groups.

**SETTING:** Elimination of health disparities is identified in Goal 2 of *Healthy People 2010* as well as the Surgeon General's initiative to eliminate health disparities.

**METHOD:** An index of disparity was developed as an improved statistic for measuring disparity among racial and ethnic groups that facilitates cross-sectional and longitudinal analyses. Age-adjusted death rates were calculated for five racial/ethnic groups and for 33 causes of death. The index of disparity was then calculated from these rates and compared for each cause of death.

**RESULT:** In 1998 disparities were highest for HIV (116%) and homicide (86%) deaths, and lowest for deaths caused by falls (21%) and pneumonia/influenza (19%) deaths. Disparities in major causes of mortality such as cardiovascular disease, cancer, diabetes, and stroke were intermediate in value (26%–42%). When we compared disparities for 1998 with those for 1989, we found a marked increase in disparities for HIV deaths (84%–116%) and a significant decline for disparity in drug-related injury deaths (43% to 28%).

**CONCLUSIONS:** Levels of disparity were moderate to high (20%–>100%) for nearly all health measures for the two periods studied. Eight health measures had moderate (>10%) declines in disparity, seven had moderate (>10%) increases, and the remaining eighteen showed little (<10%) change over the 10-year period. The index of disparity is unbiased with respect to magnitude of rates (cross-sectional analysis) and performs well over time in tracking disparities (longitudinal analysis).

**LEARNING OBJECTIVE:** Participants should be familiar with the index of disparity as one statistic that performs well in summarizing disparity among groups of populations.

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THURSDAY

FEBRUARY 28

5:00 PM

## Differential Impact of Blood Quantum on Prevalence of Diabetes Among Native Americans in Oklahoma

*J. Campbell, Z. Bursac*

**OBJECTIVE:** To describe the association between blood quantum (degree of Indian blood) and diabetes among Native American adults in Oklahoma.

**METHODS:** The Oklahoma REACH 2010 project completed 3,732 BRFSS-based phone surveys of Native Americans in Oklahoma in 2000. Survey respondents were randomly selected from seven regions in Oklahoma to oversample smaller tribes and less populated areas. Frequency distributions and logistic models were used to better understand the differences between blood quantum and demographic and social participation categories of interest.

**RESULTS:** There is a significant correlation between prevalence of diabetes and blood quantum. Among self-identified Native Americans, self-reported diabetes rates are 5.3 among those whose blood quantum is less than one-quarter, 11.1% among those reporting more than one-quarter but less than one-half blood quantum, 11.4% among those reporting a more than one-half but less than three-quarters blood quantum, 17% among those with a blood quantum greater than three-quarters but less than full blood, and 25.7% among those who report being full-blooded. Furthermore, among self-identified white Native Americans, the prevalence of diabetes is 6.7%; among self-identified black Native Americans, 8.9%; and among self-declared American Indian-Alaska Natives, 11.6%.

**CONCLUSIONS:** The reported prevalence of diabetes among Native American populations in Oklahoma ranges from 5% to 30%. This study explains differences in prevalence rates of diabetes among various Native American subpopulations. Additionally, this study suggests that a high blood quantum increases the risk for diabetes in this population.

**LEARNING OBJECTIVE:** Participants should be able to understand factors influencing different diabetes prevalence estimates for Native Americans and the dependency of these estimates on characteristics of the sampled population.

# Effect of Perceived Racism and Discrimination on Hypertension Prevalence in African Americans: The Metro Atlanta Heart Disease Study

S.K. Davis, Y. Liu, W. Nembhard, R. Collins, C. Hutto-Woods, T. Jennings

**OBJECTIVE:** To estimate the association between level of stress in response to perceived racism and discrimination and hypertension prevalence in a sample of African American adults.

**SETTING:** Few studies have examined the association of stress among African Americans in response to perceived racism and discrimination and risk for hypertension. The Metro-Atlanta Heart Disease Study (MAHDS) was a cross-sectional study designed to elucidate possible associations between perceived racism and discrimination and hypertension prevalence among African Americans.

**METHOD:** Self-reported and physiologic data were collected on a sample of 356 normotensive (n=182) and hypertensive (n = 174) African American adults aged > 21 years residing in metropolitan Atlanta, Georgia, from 1999 to 2001. Using hypertensives versus normotensives as the outcome, a logistic regression estimated the association between hypertension and level of stress among participants who reported ever experiencing racism or discrimination from non-African Americans in any aspect of life because of skin color or race; age, gender, socioeconomic status, and body mass index were included as confounding covariates. Odds ratios (ORs) and 95% confidence intervals (CIs) are reported.

**RESULTS:** Participants who reported higher levels of stress in response to a perceived racist or discriminatory experience were more likely to be hypertensive (OR/95% CI = 1.53/1.07-2.19 [P<.01]).

**CONCLUSION:** Differential reaction to exposure to stressful perceived racism or discrimination may be associated with an increase likelihood of hypertension among African Americans.

**LEARNING OBJECTIVE:** Participants should be able to identify the possible effect of racism and discrimination on hypertension prevalence among African Americans.

THURSDAY

FEBRUARY 28

5:00 PM

## From the Pool Hall to Study Hall: Young Adults and Tobacco

L. Pederson, R.P. Griffith

**OBJECTIVE:** Amid all the hope and aspirations that come with college, students now are falling prey to a significant increase in tobacco addiction. This presentation offers the latest findings in research by the Office on Smoking and Health (OSH) on the attitudes of college students and other young adults toward tobacco products, and their perspectives of the industry's often underground marketing activities.

**SETTING:** Young adults are increasingly vulnerable to the same cross-cutting chronic disease issues that once affected mostly young children, teens, or older adults. For example, obesity, physical inactivity, poor nutrition, diabetes, substance abuse, and heart disease are no longer reserved for the most frail of populations. Many of these risks function collaboratively and are exacerbated by smoking and drinking. Many of these chronic disease issues can be more effectively and efficiently targeted by prevention specialists working on interdisciplinary teams.

**METHOD:** OSH conducted a series of focus groups of young adults (aged 18–24) in 2001. A disciplined research design and process were used to explore the attitudes of these populations toward tobacco initiation and use, industry advertising and promotion, and their sense of self-efficacy toward cessation.

**RESULT:** OSH's qualitative research in these areas confirmed much anecdotal information about smoking in this age group — such as young adults' perception that quitting will be easy, and the significant role of "social smoking," especially combined with the use of alcohol and other substances. OSH's research team is finding more questions than answers, including questions about optimal measurements for this age group and the most appropriate and cost-effective health communication and health education messages. Recommendations will be made to attendees on the basis of very current research.

**CONCLUSION:** The attitudes of young adults toward smoking affect their vulnerability to tobacco industry advertising messages.

**LEARNING OBJECTIVE:** Participants will be able to describe the attitudes of young adults toward smoking.

# Adolescents' Vulnerability to STIs and Pregnancy: Can They Be Protected Against Risk?

L. Bearinger, S. Erickson, M. Resnick, C. Skay, R. Sieving, C. McNeely

**OBJECTIVE:** To examine the impact of risk and protective factors on rates of condom/contraceptive use.

**SETTING:** Trends in adolescent sexual behaviors/outcomes reflect prevention successes and failures. Despite declining pregnancy rates, U.S. teens are still at high risk for sexually transmitted infection (STI). To guide prevention practices, we examined the strength of risk vs. protective factors for condom/contraceptive use among sexually experienced adolescents.

**METHOD:** Wave 1 from the National Longitudinal Study of Adolescent Health provided data from 1,206 sexually experienced youths, aged 15–18. Separately by gender, probability profiles based on logistic regression models explained the likelihood of condom/contraceptive use at most recent intercourse, given various combinations of the most powerful risk and protective factors.

**RESULTS:** On the basis of initial logistic regressions, the following risk factors met the criteria for inclusion in the model: for boys and girls—emotional distress, delinquent behavior, perceived barriers to birth control (BC), and protective factors; for girls — BC self-efficacy, confidence in condom knowledge; for boys—BC self-efficacy, school connectedness, parental expectations. With no risk factors and all protective factors in the models, the probability of condom/contraceptive use was .86 among girls and .93 among boys compared with .28 and .40, respectively, with the presence of the three risk factors and no protective factors. Barriers to BC correlated with the greatest decrease in condom/contraceptive use, while BC self-efficacy correlated with the largest increase in use.

**CONCLUSION:** Though protective factors offset risk, adolescents amidst powerful risk remain vulnerable to STI, HIV, and pregnancy because of the nonuse of condoms/contraceptives.

**LEARNING OBJECTIVE:** To compare the role of protective factors in relation to risk in understanding adolescents' vulnerability to STI, HIV, and pregnancy resulting from inadequate use or nonuse of condoms/contraceptives.

## Do Thoughts Change Behavior or Does Behavior Change Thought? Longitudinal Study of Adolescent Contraceptive Use

R. Sieving, S. Erickson, C. Skay, L. Bearinger, C. McNeely,  
M. Resnick

**OBJECTIVE:** To examine reciprocal relationships between teens' contraceptive practices and their normative beliefs, self-efficacy, and attitudes regarding contraception, sex, sexually transmitted disease (STD), and pregnancy.

**SETTING:** U.S. adolescents experience disproportionately high rates of STD and pregnancy. While adolescent contraceptive use has increased over the past decade, dual method contraceptive use—offering protection from both STD and pregnancy—remains uncommon. To guide prevention efforts, our research aims to identify predictors of contraceptive use—including dual method use—among adolescents.

**METHOD:** Data are from 1,206 15- to 18-year-old sexually active participants in the National Longitudinal Study of Adolescent Health surveyed at baseline (T1) and 10–18 months later (T2). We used path analyses to examine longitudinal relationships between contraceptive use at most recent intercourse (4-point scale ranging from no use to combined barrier and hormonal method use) and normative beliefs, attitudes, and contraceptive self-efficacy.

**RESULTS:** After accounting for stability of variables over time and cross-sectional associations between variables, we found the following significant relationships: Among girls, lower T1 parental disapproval of contraception predicted higher levels of T2 contraceptive use. Among boys, higher levels of T1 contraceptive use predicted fewer perceived benefits of sex and more perceived consequences of pregnancy at T2.

Among boys and girls, higher levels of T1 contraceptive use predicted fewer perceived barriers to contraceptive use and greater contraceptive self-efficacy at T2.

**CONCLUSIONS:** Among these sexually active adolescents, contraceptive behavior appears to influence contraceptive self-efficacy and attitudes to a greater extent than these cognitions shape subsequent behavior. Girls' beliefs about parental disapproval may shape subsequent contraceptive behavior.

**LEARNING OBJECTIVE:** Participants should be able to describe individual-level cognitions that predict contraceptive use and those that result from contraceptive use among sexually active adolescents.

# Uniontown Farmers Market Project

*H. Hataway, M. Phillips, J. Cook, A. Sanford*

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SESSION

THURSDAY

FEBRUARY 28

5:00 PM

**PURPOSE OF THE PROGRAM:** To establish a farmers market in Uniontown, Alabama, an isolated community in West Alabama, as an environmental strategy to increase availability and consumption of fresh fruits and vegetables among citizens.

**SETTING:** The CDC-funded Uniontown Farmers Market (UTFM) was established through collaboration with the city of Uniontown, Alabama Farmers Market Authority, Alabama Cooperative Extension System, Alabama Department of Agriculture, University of Alabama at Birmingham (UAB) Center for Health Promotion, and Alabama Department of Public Health Cardiovascular Health Program.

**INTERVENTION:** UAB trained community health advisors (CHAs), coordinated promotional activities, and conducted an accompanying health education campaign. An emphasis was placed on activities in the elementary school, where coupons redeemable for fresh produce were distributed. The Alabama Farmers Market Authority and Alabama Cooperative Extension system recruited and trained local growers. The UTFM opened in May 2000 with a communitywide celebration and remained open on Saturday mornings through September in a centrally located parking lot.

**OUTCOMES:** Evaluation of the project included telephone surveys, customer intercept surveys, and farmers surveys. Despite a drought that decreased the variety and quantity of produce, the market was deemed successful by community leaders. Customer and farmer satisfaction levels were high. The UTFM is continuing to operate this year as part of the new U.S. Department of Agriculture Senior Nutrition Farmers Market Program.

**CONCLUSIONS:** The UTFM Project provides a model for establishing a community farmers market, providing increased accessibility of fresh produce to citizens and new marketing outlets for growers.

**LEARNING OBJECTIVE:** Participants should be able to describe a model for establishing a community farmers market.

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SESSION

## Junk Food Diets Initiate Atherosclerosis in Asymptomatic Teenagers

A. Sanchez, J. Barth

THURSDAY

FEBRUARY 28

5:00 PM

**OBJECTIVE:** To test diet as an initiator of atherosclerosis in teenagers with varying ethnicity and dietary habits.

**SETTING:** Diet is presumed to be associated with initiating cardiovascular disease (CVD) in teenagers because of its association with CVD in adults. This is only an assumption because teenagers do not display symptomatic CVD.

**METHOD:** The intima-media thickness (IMT) of the carotid artery is a measurable estimate of the first stage of atherosclerosis, and this, along with HeartBeat,<sup>TM</sup> a screening test for clinical risks of CVD in adults (blood lipids, glucose, blood pressure, weight), was used to correlate diet with risk of CVD in 249 male and female teenagers aged 13–18 from three high schools with varying diet habits—a predominantly white high school, a predominantly Latino high school, and a 7th Day Adventist high school.

**RESULTS:** Eighty-four percent of teenagers consumed >35% fat calories; 97% consumed >7% saturated fat; 48% consumed >300 mg cholesterol; 85% consumed <5 servings of fruit and vegetables; 9% had cholesterol levels >200 mg/dL; 35% had LDL cholesterol levels >100 mg/dL; 14% had HDL cholesterol levels <40 mg/dL; 6% had triglyceride levels >150 mg/dL; 51% had glucose levels >90 mg/dL; 9% had high blood pressure (systolic >140 mmHg, diastolic >90 mmHg); and 31% had a body mass index >25. IMT correlates with diet and many CVD clinical risk factors.

**CONCLUSIONS:** Diet initiates the pathology and risk factors of CVD in teenagers, but this outcome could be prevented by changes in eating habits.

**LEARNING OBJECTIVES:** Participants will have specific knowledge of (1) the diet of teenagers (by gender and culture), (2) IMT as triage for teenage CVD research, and (3) specifics of diet for developing effective strategies for preventing the initiation of CVD and related diseases among teenagers.

# ACTIVATE: A Childhood Overweight Prevention Initiative

*L. Kelly, R. Elder, M. Shirreffs, S. Borra, S. Rowe, S. Goldberg*

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SESSION

THURSDAY

FEBRUARY 28

5:00 PM

**PURPOSE OF PROGRAM:** ACTIVATE is a consumer communications outreach program designed to help children and their families achieve healthy lifestyles through regular physical activity and good nutrition.

**SETTING:** A collaboration of the International Food Information Council Foundation, International Life Sciences Institute, American Dietetic Association, American Academy of Family Physicians, American College of Sports Medicine, and National Recreation and Parks Association developed a multifaceted communications program targeted to children aged 9–11 and their parents.

**INTERVENTIONS:** ACTIVATE uses unprecedented in-depth consumer research—focus groups, ethnographic research, in-home interviews, and quantitative research—to track consumer knowledge and perceptions of the overweight problem, define appropriate audiences for messages, and develop customized program elements in order to deliver personalized and actionable advice for healthy living.

**OUTCOMES:** We will develop an interactive and innovative Web site that incorporates consumer input and provides tools and advice to help children and their parents work together to achieve a healthy lifestyle.

**CONCLUSIONS:** Childhood overweight and obesity constitute a growing epidemic that shows no signs of diminishing. Effective communications and programs are needed to begin turning the tide for prevention. ACTIVATE is one small piece of a larger structure that must be in place to effectively address this issue.

**LEARNING OBJECTIVES:** Participants will (1) better understand the consumer psyche and be able to identify key motivators and obstacles for children and parents in preventing childhood obesity and (2) learn how to use consumer understanding to develop programs and messages that are effective.

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SESSION

THURSDAY

FEBRUARY 28

5:00 PM

## Winner's Circle Healthy Dining Program: Where Nutritious Meets Delicious

D. Beth

**PURPOSE:** To create healthy eating environments across North Carolina (NC) by empowering local partners to offer eating-out venues technical assistance to identify and promote healthy menu items; to create consistent, credible, and easily recognized nutritional guidance for consumers; and to increase consumer demand for healthy restaurant items.

**SETTING:** Winner's Circle (WC) is a collaborative effort of the NC Division of Public Health Cardiovascular Health (CVH) Program and Physical Activity and Nutrition Unit), NC Prevention Partners, NC Restaurant Association, and over 40 local health partner organizations.

**INTERVENTIONS:** After local health partners are trained, they complete the following steps to implement WC: (1) form a local coalition; (2) determine the priority population; (3) complete eating-out surveys with the target population and compile results; (4) approach the most popular eating-out venues identified in survey; (5) assess the healthy items on menus; (6) analyze recipes and identify items that meet WC criteria; (7) work with venues to market WC items; and (8) conduct follow-up and evaluation.

**EVALUATION:** Ongoing evaluation is being conducted on the WC program, including process and outcome evaluation. Additional evaluation is being conducted through the NC CVH Program.

**IMPLEMENTATION:** The WC Program has been successful through a positive approach to nutrition; rewarding restaurants for offering healthy items; free promotional/marketing items provided to restaurants; and training and materials provided to local health partners to influence nutrition through a policy and environmental approach.

**LEARNING OBJECTIVES:** Participants will understand the overall concept of the WC Program and be able to identify where to find more information.

# Putting Arthritis on the Public Health Agenda

L. Maisels, D. Allen, C. Bushnell

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SESSION

FRIDAY

MARCH 1

8:30 AM

**OBJECTIVE:** To put arthritis at the forefront of the Massachusetts public health agenda and develop a state arthritis action plan.

**SETTING:** The Massachusetts Arthritis Planning Project (MAPP) maximized limited resources by generating excitement about arthritis and creating collaboration.

**INTERVENTION:** MAPP stimulated interest in arthritis by (1) emphasizing the societal impact of arthritis, (2) using all available forums within the Massachusetts Department of Public Health (MDPH) to publicize MAPP, and (3) generating excitement by emphasizing the new paradigm required to respond to arthritis. Although public health has traditionally emphasized primary prevention, this paradigm requires attention to all levels of prevention and emphasizes tertiary prevention to reduce the consequences of disease. Tertiary prevention promotes health and functioning for persons with illnesses and disabilities, and interventions range from education about disease management to improving transportation access. Thirteen MDPH programs participated in the advisory council, and three subcommittees were cochaired by MDPH staff.

**OUTCOME:** MAPP successfully put arthritis at the forefront of the public health agenda in Massachusetts and completed a state plan. MDPH plans to select 1–2 cross-cutting themes to focus on in 2002.

**CONCLUSION:** MAPP leveraged public health resources by creating collaboration and generating excitement about this new approach to chronic disease and disability.

**LEARNING OBJECTIVE:** Participants will be better able to develop strategies to focus public health attention on chronic disease control.

# 22

SESSION

FRIDAY

MARCH 1

8:30 AM

## Integration of Partners and Establishment of a Comprehensive Arthritis State Plan

L.F. Austin

**OBJECTIVE:** To engage partners statewide to develop and implement strategies to control arthritis; identify the disease at its earliest stage and initiate prompt, appropriate management; and reduce the consequences of arthritis.

**SETTING:** A collaboration of representatives from the health department; state government; academia; the private sector; and laypersons with knowledge and interest in arthritis control, communications, and policy developed a state plan.

**INTERVENTIONS:** Because of the high burden of arthritis in Alabama (36%), the Alabama Department of Public Health, along with two key partners, the Arthritis Foundation in Alabama and the University of Alabama at Birmingham, enlisted partners statewide. These established contacts were invited to become members of a statewide coalition and to participate in one of five workgroups.

**OUTCOMES:** Eighty agencies/organizations established 268 members. To date, workgroups completed a case-based training module with CEUs attached, access to a rheumatologist in three rural locations, a Preventive Education for Arthritis in the Work Place Task Force, an educational video for distribution to 14,000 seniors at nutrition sites, a public service announcement, arthritis surveys (children/high-risk elderly), and an evaluation plan.

**CONCLUSIONS:** Cooperative efforts among public/private agencies validated the effective mechanism of working together to create a state plan that accomplished endeavors that would have otherwise been impossible.

**LEARNING OBJECTIVES:** Participants should be able to identify partners statewide and establish relationships among these agencies/organizations with different environments, perspectives, and expectations to provide a bridge that drives the state plan.

## Essential System Changes Necessary to Improve Arthritis Clinical Care

T.J. Brady, A.E. Bonomi

**OBJECTIVE:** To identify characteristics of high-quality clinical care for people with arthritis, a necessary precursor to quality improvement in arthritis care.

**SETTING:** Modifying health care systems to better meet the needs of people with arthritis (PWA) is a key strategy in the *National Arthritis Action Plan: A Public Health Strategy*. However, without an “old standard” or model clinical care program, the system changes necessary to better meet PWA’s needs are not clear.

**METHOD:** The Improving Chronic Illness Care Program at Group Health Cooperative and the Centers for Disease Control and Prevention, with the Arthritis Foundation, convened two expert panels to identify essential system changes (change concepts) necessary to improve patient outcomes in arthritis care. The first panel of 10 experts used a modified Delphi process to identify critical clinical arthritis change concepts. The expanded panel of 35 experts met to validate the change concepts and discuss clinical quality improvement strategies and barriers.

**RESULTS:** Eleven change concepts emerged from the initial expert panel. The majority centered on enhancing self-management by people with arthritis. Other concepts focused on immediate diagnosis and treatment by primary care providers (PCPs), and routine assessments of patient needs linked to appropriate action. Top priorities identified by the expanded expert panel were shared decision making, referral to self-management programs, immediate response by PCPs, and early appropriate rheumatology referral.

**CONCLUSION:** Critical system changes necessary to improve patient outcomes in arthritis have been identified. Similar concepts have been successfully addressed in other chronic conditions, suggesting that quality improvement is possible in arthritis as well.

**LEARNING OBJECTIVE:** Participants will be able to describe essential system changes necessary to improve patient outcomes in arthritis clinical care.

# 23

SESSION

FRIDAY

MARCH 1

8:30 AM

## Simplified Diabetes Management for Solo Physician Office that Achieved Weight and Glycemic Control

*M.E. Meijer*

**OBJECTIVE:** To allow solo physicians to induce dietary changes for diabetic glycemic control by using a simplified, patient-friendly, and staff-efficient program.

**SETTING:** Hgb A<sub>1c</sub><7% without significant weight gain are goals of diabetic management. Available programs, including that from the American Diabetes Association (ADA), are too difficult for patients and too cumbersome for a rural physician office, especially solo with a small staff. And yet, most diabetic patients are treated by primary care family physicians (FPs).

**METHOD:** A rural solo FP (near Myrtle Beach, South Carolina) developed the Aynor Family Practice Diabetes Management (AFP-DM) program: It consisted of greatly improved outpatient information handouts produced by AFP, individualized goals, six daily meals of “eat a little of a lot (variety of foods) rather than a lot of a little” determined by caloric counts for glycemic/weight control and increased fiber. Mottos, slogans, and mnemonics are used. Fasting initially ( $\leq 3$  days) helped treat glucotoxicity. Measurement of Hgb A<sub>1c</sub> and weight monitored the outcome.

**RESULTS:** A total of 110 patients, with basal Hgb A<sub>1c</sub> of  $8.5 \pm 3.5\%$  (24 new patients),  $8.7 \pm 2.5\%$  (53 established),  $8.7 \pm 2.6\%$  (33 transfer), were studied. After 3.3–7.6 years of participation, Hgb A<sub>1c</sub> dropped significantly to  $6.9 \pm 1.6\%$  ( $P < 0.001$ ). There was no significant weight gain ( $205.3 \pm 48.0\%$  vs  $204.9 \pm 50.8\%$ ,  $P > 0.5$ ). Age did not affect outcome. Twenty-two African Americans (basal Hgb A<sub>1c</sub>  $10.4 \pm 3.3\%$ ) had better outcomes ( $6.6 \pm 1.2\%$ ) than 88 whites ( $8.2 \pm 2.4\%$  to  $6.9 \pm 1.7\%$ ).

**CONCLUSION:** The AFP-DM program, a more practical program for FPs, effectively achieved both Hgb A<sub>1c</sub> <7% and no weight gain.

**LEARNING OBJECTIVE:** Participants should be able to describe the AFP-DM program, which is designed for use by solo (any) primary care physicians to improve DM care.

# The Perception of Exercise in Older Adults with Rheumatoid Arthritis or Osteoarthritis

N. James, T. Mikuls, M. Weaver, K. Saag

23

SESSION

FRIDAY

MARCH 1

8:30 AM

**OBJECTIVES:** To determine associations between perceived disease severity (DS) and the Exercise Benefits/Barriers Scale (EBBS) in older adults with arthritis.

**SETTING:** University Rheumatology Clinic Consecutive patients (n=141) with a diagnosis of rheumatoid arthritis (RA) or osteoarthritis (OA) visiting rheumatologists (n=7) in a 2-month period participated.

**METHODS:** Patients self-completed the EBBS (range 43–172) with higher scores indicating positive perceptions of exercise. Patient-perceived DS was measured by VAS (0–100, 0 = no disease activity). The associations between EBBS, DS, and other potential predictors were modeled by using linear regression.

**RESULTS:** Mean subject age was  $64.4 \pm 9.4$  with 72% women, 44% African American, 50.4% with RA, mean EBBS score  $121.7 \pm 13.9$ , and mean DS  $51.3 \pm 27.5$ . After adjusting for age, gender, race, and type of arthritis, DS was significantly associated with the EBBS score (partial  $r^2 0.054 P= 0.006$ ). The higher the DS, the lower the EBBS score.

**CONCLUSIONS:** This research suggests that increased perceived DS is associated with decreased perceived value of exercise (as measured by EBBS) in older adults with arthritis. Further analyses will determine whether DS is an independent predictor of this association.

**LEARNING OBJECTIVES:** Participants should be able to describe the use of and factors associated with the EBBS scale among RA and OA patients.

## Description of U.S. County Mortality Experience, 1993–1997

N.F. Kanarek, R.Bialek, Y. Shaw-Taylor, A. Shah

**OBJECTIVE:** To describe disease-specific mortality rates and percent improvement for counties by various county-specific sociodemographic factors.

**SETTING:** “Healthy communities” is a significant part of the nationwide *Healthy People (HP) 2010* initiative that will require increased efficiency of current programs, if not increased resources. Identifying local areas experiencing high rates or low percentage change in mortality and characterized by county sociodemographic type may be useful to state and national policymakers developing targeting strategies.

**METHOD:** Nine key age-adjusted *HP 2010* mortality indicators were examined for the 3,082 U.S. counties identified in the Community Health Status Indicators database. Average county, cause-specific mortality (1993–1997) by county type, determined using county size, density, frontier status, poverty, age, and race and ethnicity composition, was calculated. Similarly, average percentage change (1993–1997) in mortality rates was analyzed.

**RESULT:** Analyses indicate some homogeneity in the distribution of mortality rates and percentage change. For example, colon/rectum cancer mortality is represented in equal magnitude, irrespective of county type. Other mortality causes, however, are related to poverty, density, or size. Multivariate models of community factors influencing community mortality are discussed.

**CONCLUSION:** We have begun to examine county mortality and the county characteristics that influence health outcomes. More work is needed to understand the nature of the effect of racial and ethnic composition factors implicated in community mortality.

**LEARNING OBJECTIVE:** The audience will learn about counties as the unit of measure and county characteristics as predictors of county outcomes.

# Risk Stratification Creates More Cost-Effective Health Promotion

M.M. Root

**OBJECTIVE:** A stratification of risk that uses unique multivariate risk models for multiple diseases to allocate limited health promotion resources more cost effectively.

**BACKGROUND:** Simplified risk stratification is beginning to be used in the primary prevention of chronic disease.

**METHODS:** A simulated group of 17,652 employees was created from NHANES III. Disease risks for coronary heart disease, type 2 diabetes, and stroke were calculated, summed, and stratified into quintiles. A hypothetical health promotion program was implemented with a program effectiveness estimated per employee per dollar spent as either the absolute or relative percentage reduction in risk of chronic disease. A stratified versus a uniform distribution of health promotion resources was examined.

**RESULTS:** In the simulated group the estimated number of new cases (within 5 years) of the three diseases was 2,003. Assuming a reduction in absolute risk of 0.1% per dollar spent, administered uniformly over the population, this group would see a reduction in total disease morbidity of 13% with a \$10-per-member health promotion program. If these funds were allocated to the quintiles in proportion to their average disease risk, then the reduction in morbidity would be 20%. Assuming a reduction in relative risk of 1.71% per dollar spent, the risk reduction through a uniform distribution would be the same (13%), but the reduction through stratified allocation would be 38%.

**CONCLUSION:** A health promotion program focused on high-risk strata of participants identified through multiple disease risk equations might greatly improve community-based primary prevention.

**LEARNING OBJECTIVE:** Participants will be able to describe the use of simplified risk stratification in the primary prevention of chronic disease.



## Development of a Mediational Model for Family-Based Intervention in an Ethnically Diverse Population

K.D. Reynolds, J. Marshall, E. Belansky, L. Crane, B. Sawyer

**OBJECTIVE:** To present the development and use of a mediational model for the design and evaluation of a family-based nutrition and physical activity intervention.

**SETTING:** Mediational analysis has been proposed to create theory-based interventions and identify elements of interventions that make them effective. Few mediational models have been systematically tested. If widely used, mediational analysis could improve understanding of the components that make interventions effective for specific behaviors and populations.

**METHOD:** A theory-driven mediational model was developed for use in a family-based intervention targeting nutrition and physical activity in an ethnically diverse, rural population and used to guide intervention development and measurement. Families (N=90; 62% Hispanic) were recruited, and one parent and one 2nd-grade child completed a baseline assessment. Diet, physical activity, and mediational variables were measured.

**RESULTS:** Factor analysis on baseline data yielded 11 potential mediating variables for diet and 7 for physical activity. These included intrapersonal (e.g., self-efficacy), interpersonal (e.g., family support), and physical environment constructs (e.g., accessibility of physical activity facilities). Numerous potential mediators correlated at baseline. Examples include self-efficacy for diet and physical activity ( $r=.43$ ,  $P<.0001$ ), and accessibility to exercise equipment and function support for physical activity ( $r=.27$ ,  $P<.002$ ).

**CONCLUSION:** Mediational analysis provides a useful guide for the development of interventions and evaluation measures in intervention studies. This abstract presents the rationale and initial analyses for one example of this approach.

**LEARNING OBJECTIVES:** Participants will be able to define mediational analysis, describe the four criteria for satisfying mediation, and provide one example of its use.

# Evaluating an Asthma Disease Management Program

M. Yin

**OBJECTIVE:** To evaluate an asthma disease management program by examining outcomes of patient clinical status, medical service utilization, return-on-investment, and patient satisfaction.

**SETTING:** The intervention group included 261 patients with asthma from a health maintenance organization (HMO) plan who voluntarily enrolled in the program for 10 months. The comparison group included 545 patients with asthma from the same HMO plan who chose not to participate in the program.

**METHOD:** A pre/post-analysis for the intervention group and a retrospective cohort analysis were both performed to examine changes of medical service utilization. A return-on-investment was estimated based on the pre/post-analysis. Clinical status outcomes were compared for the program participants at program intake and 6 months after program enrollment.

**RESULT:** The pre/post-analysis showed decreases of 46% in hospitalizations, 28% in emergency department (ED) visits, and 12% in physician visits, ( $P<0.05$ ). The retrospective cohort analysis showed that the program participation was associated with low hospitalization (odds ratio 0.56; 95% CI 0.27-1.09) and low ED utilization rates (odds ratio 0.85; 95% CI 0.57-1.25). Significant improvements were seen in patient clinical status ( $P<0.05$ ); the program satisfaction rating reached 93%; the return-on-investment was estimated as 2.1.

**CONCLUSION:** The improvement of health conditions for patients with asthma and reduction of patient medical service utilization was attributable to this disease management program. More work is needed to enhance the reliability of retrospective cohort analyses for evaluating the disease management impact.

**LEARNING OBJECTIVE:** Retrospective cohort analyses are necessary to strengthen the reliability of disease management outcome studies.

## A Systematic Review of the Effectiveness of Health Care System and Self-Management Training Interventions in Diabetes: The *Guide to Community Preventive Services*

S. Norris, P. Messina, M. Engelgau, R. Glasgow, L. Jack, G. Isham, C. Caspersen, P. Briss

**OBJECTIVE:** To present a systematic review and evidence-based recommendations on the effectiveness of health care system and self-management training (SMT) interventions in diabetes.

**SETTING:** Diabetes is a complex and difficult disease to manage, and current levels of care and self-management practices within community settings are suboptimal.

**METHOD:** The diabetes chapter of the *Guide to Community Preventive Services* provides evidence-based recommendations for communities and health care systems. A systematic review was performed, and recommendations were formulated on the basis of suitability of study designs, quality of the data, number of studies, and consistency and magnitude of the effect sizes.

**RESULTS:** Disease management improved glycated hemoglobin (GHb) levels (median effect: -0.5%), provider monitoring of GHb and lipid levels, and screening for retinopathy. Case management improved GHb (-0.5%) and increased the frequency of provider monitoring of GHb. SMT for adults with diabetes delivered in community gathering places and in the home for adolescents with type 1 diabetes improved GHb (-1.9% and -1.1%, respectively). Evidence was insufficient to determine the effectiveness of education of school personnel and of SMT in the home for adults with diabetes, in recreational camps, and in the work site.

**CONCLUSIONS:** Disease and case management are strongly recommended, and SMT is recommended in the settings of community gathering places for adults with diabetes and in the home for adolescents with type 1 diabetes. Further research is needed to optimize effective interventions and identify effective interventions in recreational camp, work site, and school settings.

**LEARNING OBJECTIVES:** Participants should be able to describe the diabetes-related interventions recommended by the *Guide to Community Preventive Services*.

# What Happens When the Workplace Closes? Using Participatory Research Methods to Solve the Problem

*S. Benedict, C. Williams, P. Gonzales, J. Peralta*

**PURPOSE OF THE PROGRAM:** Health Works for Women/Health Works for the Community (HWW/HWC) is a demonstration project funded by the Centers for Disease Control and Prevention that addresses improving health behaviors of blue-collar women. This participatory research project is guided by an active Community Advisory Committee (CAC) and Employee Wellness Committees (EWCs) in six workplaces. CAC includes line workers and midlevel managers from participating workplaces and representatives from local community agencies.

**SETTING:** Twelve manufacturing plants in four rural North Carolina counties.

**INTERVENTIONS:** EWCs are formed to choose and implement low-cost projects to improve workplace support for healthy behaviors. Natural helper programs provide training to lay health advisors on wellness topics.

**OUTCOMES:** Many manufacturing plants are closing in rural North Carolina, and a workplace participating in HWW/HWC laid off most employees, including HWW/HWC natural helpers and EWC members. One EWC member (also the CAC co-chair) organized a “Health Works for Women Lives On” group that is continuing to meet outside the workplace. In conjunction with the local domestic violence agency, which provides support and programs for unemployed women, the group holds programs to help laid-off women find work, support each other, and cope with stresses of unemployment.

**CONCLUSIONS:** Participatory research is an evolving research method, and researchers cannot anticipate all outcomes. This project demonstrates that the method can be successful in helping projects overcome unforeseen problems, such as plant closings.

**LEARNING OBJECTIVE:** Participants will be able to describe at least two benefits of using a participatory research model.

# 26

SESSION

FRIDAY

MARCH 1

8:30 AM

## Creating Collaborations: Establishing the Work Site Inventory Program

*M. Dietz, D. Hawkins*

**PURPOSE OF THE PROGRAM:** To discuss the creation of a collaboration between state and local public health agencies (LPHAs) to establish a work site inventory intervention program. Preliminary results will be presented.

**SETTING:** A goal of cardiovascular health projects sponsored by the Centers for Disease Control and Prevention is to influence policy and environmental changes within communities. Work sites are one of the areas targeted for these changes. In Missouri, few data exist on work site support and infrastructure for physical activity, nutrition, and tobacco. To achieve this goal, a collaboration was created between the state cardiovascular health (CVH) program and LPHAs.

**INTERVENTIONS:** LPHAs were identified based on capacity and solicited to participate in the program. All regions of the state were represented. The work site inventory was piloted in three areas of the state. Information gathered from the pilots assisted planning concerns such as confidentiality, adaptability of the work site inventory for differences in size and industry of the work site, data collection, and management.

**OUTCOMES:** After the collaboration was finalized between the state CVH program and LPHAs, the work site inventory program began across the state. Preliminary data will be presented for approximately 50 work sites from all regions of the state.

**CONCLUSION:** Collaborations between the state CVH program and LPHAs are a useful way to collect local-level data and encourage heart-healthy interventions. The inventory tool and coalitions that exist on the local level allow for improved data collection opportunities and communication between state agencies and citizens.

**LEARNING OBJECTIVE:** Participants should be able to (1) describe the process involved in creating a collaboration with LPHAs, (2) identify major policy and environmental focuses highlighted in the work site inventory, and (3) determine what the major barriers are for work sites to implement policy and environmental changes.

# Recommendations to CDC for Promoting Best Practices for Work Site Health Promotion

*D. Matson Koffman, L. Carnes, M. Britt, S. Deitchman, M. Greaney,  
J. Harris, P. Kalen, K. Kunkle, A. Lanza, S. Mercure, V. Morelli,  
J. Neiner, N. Nowak, S. Williams*

**PURPOSE OF THE PROGRAM:** A panel of national experts in work site health promotion met with representatives from the Centers for Disease Control and Prevention (CDC), employers Managed Health Care Association (MHCA), and the National Business Coalition on Health (NBCH) on May 3, 2001. The purpose of the meeting was to identify the experiences, best practice models, and tools implemented by companies for health promotion, disease prevention, and disability management.

**SETTING:** The meeting was held at the MHCA offices in Washington, D.C.

**INTERVENTIONS:** The panel addressed a number of issues to determine the current best practices for work site health promotion, disease and disability management, and suggestions for their dissemination; new research ideas; corporate and management perspectives; and the process for building health and business partnerships.

**OUTCOMES:** Panelists recommended next steps to CDC and its partners to further promote best practices for work site health promotion. For example, to increase collaboration with other federal agencies and organizations; to conduct research on the effects of health on work performance and the effects of environmental interventions on health behavior; and to assemble and disseminate *one-stop shopping* information on model programs, particularly to small underserved employers.

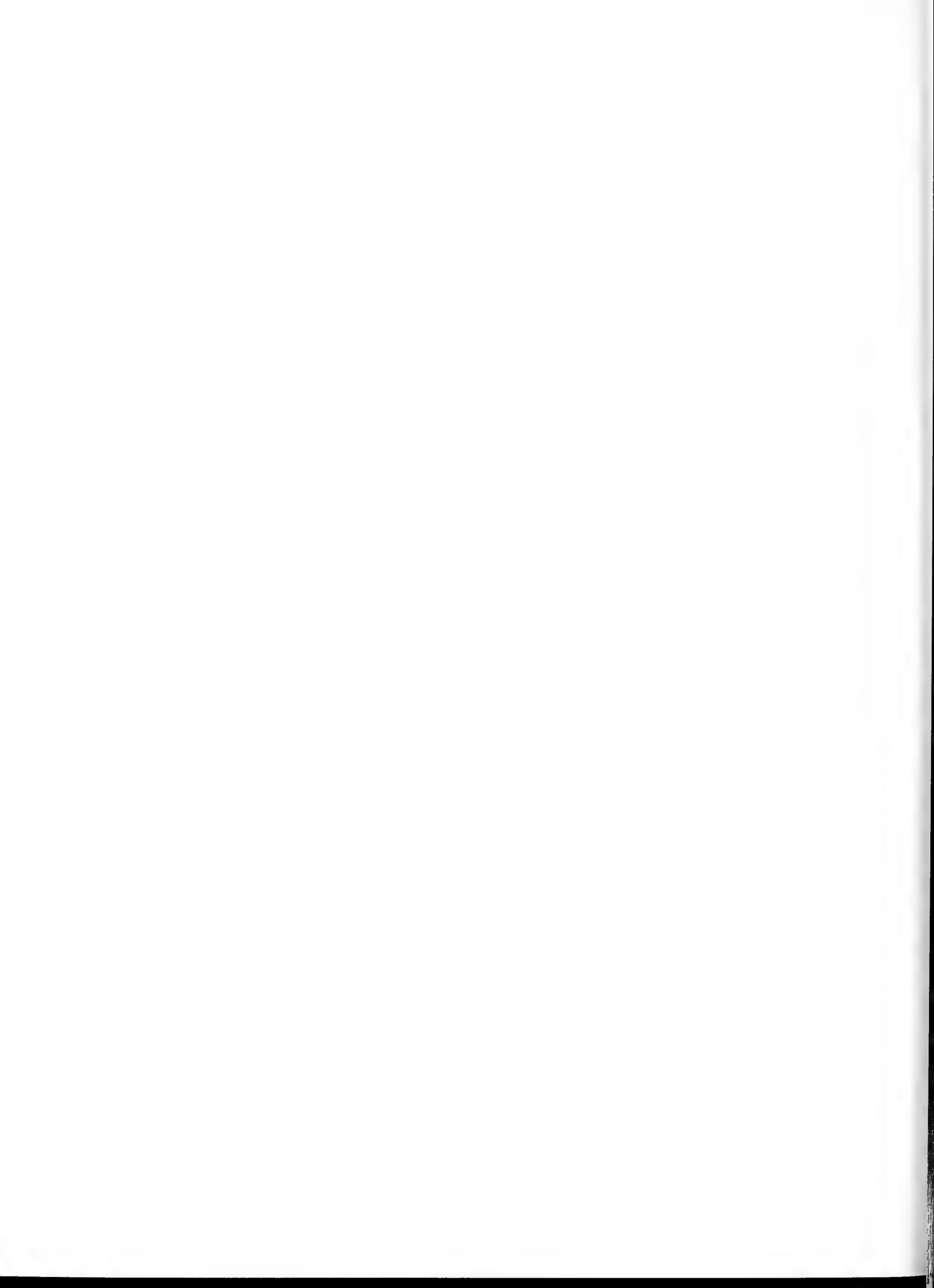
**CONCLUSIONS:** The expert panel provided insight into current and best practices of work site health promotion and made specific recommendations to CDC and its partners.

**LEARNING OBJECTIVES:** Participants should be better able to describe best practices for work site health promotion, suggestions for their dissemination, and recommendations for research.



# Poster Presentations

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# Dietary and Physical Activity Trends in South Carolina Adolescents

H. Shoob, R. Sargent, J. Drane, K. Zulig

1

TRACK

PI

**OBJECTIVE:** This study compared trends in dietary intake and physical activity patterns among 9th- to 12th-graders.

**SETTING:** The 1999 Youth Risk Behavior Survey was administered to a statewide random sample of 9th- to 12th-graders in public high schools in South Carolina.

**METHODS:** The 1999 South Carolina survey instrument consisted of 99 questions that assessed the six priority health-risk behaviors that cause the greatest amount of premature morbidity and mortality and social problems among youth.

**RESULTS:** A statistically significant difference was observed among black females, black males, white females, and white males regarding intake of fruit juice, fruit, green salad, potatoes, carrots, other vegetables, and milk and among 9th-, 10th-, 11th-, and 12th-graders regarding intake of green salad and carrots. A statistically significant difference was observed among black females, black males, white females, and white males regarding numerous physical activity and exercise variables and among 9th-, 10th-, 11th-, and 12th-graders regarding several physical activity and exercise variables.

**CONCLUSION:** Dietary intake of fruit juice, fruit, green salad, potatoes, carrots, other vegetables, and milk appears to decline as students progress from 9th to 12th grades. Involvement in physical activity, exercising to strengthen and tone, involvement in physical education (PE) classes, the number of minutes exercising or playing sports in PE classes, and playing on sports teams also appears to decline as students progress from 9th- to 12th-grades.

**LEARNING OBJECTIVE:** Participants should be able to describe the dietary and physical activity behaviors of South Carolina 9th- to 12th-grade adolescents.



## Potential Use of GIS to Assess Communities

K. Kirtland, D. Porter, M. Neet, B. Ainsworth, P. Sharpe

P2

**OBJECTIVE:** To determine how geographic information systems (GIS) may be used to identify assets and obstacles to chronic disease prevention within communities.

**SETTING:** The use of GIS in public health is continually being explored. An understanding of how this technology will assist in epidemiologic surveillance activities and development of effective interventions for communities would be advantageous for public health professionals.

**METHOD:** On the basis of the available published literature, we conducted an overview of GIS applications in assessing community indicators. Included in this review is the methodology used in an ongoing study to assess community supports of physical activity in a rural environment of South Carolina.

**RESULT:** Through the use of geocoding, GIS allows data to be examined spatially, thus enabling users to identify patterns that exist within a community. Specific uses of GIS to assess a community are as a validation tool for survey items, an informative tool to examine the effects of the natural and built environment, and a cartographic tool to spatially display quantitative health data. From information gained in these methods, the assets and needs of a community may be identified.

**CONCLUSION:** The capability to graphically display data on a map in a clear manner, to integrate data from disparate sources, and to evaluate patterns makes GIS a powerful tool in community assessment and epidemiologic surveillance.

**LEARNING OBJECTIVE:** Participants will be familiar with ways to identify resources within a community using GIS and to discern the potential challenges of using GIS.

# Clinical Preventive Services State Legislation: What Is Required?

M. Bondi, M. French, J. Clymer

**OBJECTIVE:** To determine the state laws requiring health insurance coverage of a list of clinical preventive services and compare with the U.S. Preventive Services Task Force (USPSTF) recommendations.

**SETTING:** The Partnership for Prevention (Partnership) contracted with the National Conference of State Legislators to collect clinical preventive service mandates. This is part of a larger project, funded by the Robert Wood Johnson Foundation, to assess insurance coverage of clinical preventive services in employer-sponsored health plans.

**METHOD:** Data were collected for legislation enacted through December 31, 2000, and June 30, 2001. Basic/standard health plan data were also collected. Specifics included state, type of plan affected, exemptions, age, periodicity, technology, effective date of legislation, and citation information.

**RESULTS:** Most states have laws requiring some clinical preventive services. Many of the mandated benefits are not recommended by the USPSTF. Only three states require coverage of tobacco cessation services even though such services are proven to reduce smoking. Nine states require colorectal cancer screening (recommended), whereas 23 states require prostate cancer screening (not recommended based on evidence). The report highlights state mandates for the list of clinical preventive services, discrepancies from USPSTF recommendations, and variations between states.

**CONCLUSIONS:** Most states have clinical preventive service mandates, but many do not use available information to determine which services and specifics should be mandated for coverage in health plans.

**LEARNING OBJECTIVE:** Participants should be able to gather state information and compare with information from other states and the USPSTF recommendations, and create policy recommendations for expanding clinical preventive service mandates.



## How Do Employers Make Decisions About Clinical Preventive Services?

M. Bondi, M. French, J. Clymer

P4

**OBJECTIVE:** To assess how employers make decisions regarding clinical preventive service coverage in the health plans they sponsor for employees.

**SETTING:** The Partnership for Prevention conducted four focus groups to carry out the objective. This is part of a larger project, funded by the Robert Wood Johnson Foundation, to assess insurance coverage of clinical preventive services in employer-sponsored health plans.

**METHOD:** Focus group participants included benefit managers and decision makers of employers of varying industries and regions. Four groups were conducted: one represented employers with >1,000 employees, one represented employers with 200–1,000 employees, one represented employers with <200 employees, and one represented employers who are part of a purchasing coalition. A discussion guide addressing how decisions are made, what type of information is used, what factors are important, what barriers exist, and what improvements can be made was used.

**RESULTS:** Important factors for employers in providing coverage for clinical preventive services include cost, limited choices, disease care coverage, and other relevant issues. The business case needs to be made in order for employers to cover these services.

**CONCLUSIONS:** The results from the focus groups highlight the current situation and potential ways to improve the information that employers have and use regarding clinical preventive services, improve the way employers make decisions, and expand coverage of these services in employer-sponsored health plans.

**LEARNING OBJECTIVE:** Participants should be able to understand the preventive health service concerns facing employers and create recommendations to address those concerns.

# Live Long and Prosper: Improving Physical and Emotional Well-Being in the Seriously Mentally Ill

L. Sullivan

2

TRACK

P5

**PURPOSE OF THE PROGRAM:** To engage adults with serious mental illness in activities and behaviors that will have a positive effect on their physical and emotional well-being.

**SETTING:** The Commonwealth of Massachusetts Department of Mental Health South Suburban Site, a geographic area south of Boston providing services to approximately 700 patients with serious, persistent mental illness. Many comorbid conditions impacting the health and well-being of patients of the Department of Mental Health arise from lifestyle issues. These include but are not limited to smoking, obesity, social isolation, failure to seek health care, medication noncompliance, and physical inactivity. This program was designed to provide health education and socialization in a climate of positive energy and regard.

**INTERVENTIONS:** A group protocol and 8-week curriculum addressing such important health topics as fluid balance, healthy diet, cardiovascular fitness, cultivating supportive relationships, health maintenance, pathways to smoking cessation, and medication compliance was developed. Patients were both self-referred and provider-referred. S.F. 12, a tool to assess self-perception of physical and emotional well-being, was administered at the first and final sessions of the group.

**OUTCOMES:** Participants' reported self-perception of health and well being via the S.F. 12 increased over 100%. Participants expressed desire for ongoing group support around healthy behaviors.

**CONCLUSIONS:** Self-assessment of physical and emotional well-being in seriously mentally ill adults can be improved via group intervention, designed to provide health education and socialization in a climate of positive energy and regard.

**LEARNING OBJECTIVES:** Participants should be able to identify comorbid factors impacting excess mortality of the mentally ill and the components of a curriculum addressing them in the context of health education and socialization. Participants should be aware of S.F. 12, a tool to assess self-perception of physical and emotional well-being.



## Results of a 6-Year CDC Program on NCD Prevention in Russia

H. Zabina, T. Schmid, B. Lankenau, P. Siegel

**PURPOSE OF THE PROGRAM:** To assist the Russian Ministry of Health in developing policies and strategies for noncommunicable disease (NCD) prevention in the context of public health reforms in Russia.

**SETTING:** The National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Centers for Disease Control and Prevention (CDC), and the Russian Center for Preventive Medicine developed a collaborative partnership including USAID, World Health Organization (WHO) Mega-Country Initiative, WHO CINDI Program, the Soros Foundation, and Russian medical schools, and departments of health.

**INTERVENTION:** The program covered three areas: development of policies and strategy, creation of a national Behavioral Risk Factor Surveillance System, and building epidemiologic capacity for NCD prevention.

**OUTCOMES:** Policy guidelines that provided grounds for shifting preventive efforts from the federal to the regional level were created and disseminated. They became the background for developing the concept of public health in Russia and for regional programs for NCD prevention. Ten Russian regions implemented their programs during 1998–1999. The instrument for monitoring behavioral risk factors was developed and tested in 2000 in Moscow. Fourteen sites in Russia scheduled surveys for 2001–2002. A training program for increasing epidemiologic capacity was developed, and three training seminars were conducted in 2000–2001.

**CONCLUSIONS:** The program has provided the framework for reorientation of public health in Russia toward community-based preventive programs. Initial efforts have proven successful. The experience gained as a result of collaboration with CDC will help ensure sustainability and expansion of this program.

**LEARNING OBJECTIVES:** Participants will better understand the CDC role in global disease prevention and learn how public health approaches can be translated to different settings.

# What Makes a Community Walkable? A Walk to School Day Case Study

A. Seeley, W. Shoemaker, M. Braza

2

TRACK

P7

**OBJECTIVE:** To examine the relationship between various environmental factors and the mode of transportation used by 5th-grade students traveling to and from school.

**SETTING:** *Healthy People 2010* objectives have been set to substantially increase the number of children who walk and bicycle to and from school. Little is known about the environmental factors contributing to school commute choice.

**METHOD:** Classroom surveys of 5th-grade students were conducted by 34 public elementary schools in California that hosted a Walk to School Day event in October 1999. Geographic information system (GIS) mapping, a review of school status reports, and 1990 census data were combined to obtain measures for race/ethnicity, socioeconomic status, housing density, and community design. Variables were plotted on scattergraphs.

**RESULT:** Walking to school was positively correlated with population density, housing density, miles of city streets, and number of neighborhood intersections. In substantiating the influence of these factors, only 13% of 5th-grade students walking to school in a neighborhood ranked in the 10th percentile of the community design features. This is in contrast to 59% of the 5th-grade students walking to school in a neighborhood ranked in the 90th percentile of the community design features.

**CONCLUSION:** This California study indicates that various community design features are associated with children's travel modes during school commute trips. It is therefore possible that appropriate modification of these environmental factors could lead to increased walking and bicycling to and from school by students.

**LEARNING OBJECTIVE:** Participants will be able to identify four factors within community environments that may influence whether 5th-grade students will walk or bicycle for their school commute. Participants will be able to employ or adapt research methodology to replicate this study elsewhere.

## Geographic Distribution of Facilities that Promote/Harm Heart Health in the Jackson, MS, Metro Area

A. Penman, L. Zhang, K. Funches, A. Skipwith, C. Haydel Jr., E. Howell

**OBJECTIVES:** (1) Map all parks, walking trails, bike paths, exercise facilities, fast-food facilities, restaurants with “heart-healthy” menu choices, and smoke-free restaurants within the Jackson metro area and (2) compare and correlate the distribution of facilities with the socioeconomic status (SES) of the resident population and with local cardiovascular disease (CVD) mortality data.

**SETTING:** Barriers to cardiovascular health include the lack of availability of (1) facilities such as parks, walking trails, walking routes in malls or shopping centers, and bike paths; (2) exercise facilities, including swimming pools; (3) restaurants with “heart-healthy” menu choices; and (4) smoke-free restaurants or restaurants with smoke-free areas. An additional barrier may be the widespread availability of fast-food facilities, which offer inexpensive, high-fat food.

**METHOD:** Data were obtained from multiple sources, including the Bureau of Environmental Health, the “yellow pages,” and local chambers of commerce. A Global Positioning System (latitude/longitude) reading was obtained for each facility. Geomapping was done with Arcview Geographic Information Systems software. Within each Census block group, socioeconomic and CVD mortality data were compared with the number of facilities.

**RESULTS:** Facilities are not distributed evenly across the metro area. More fast-food facilities and fewer exercise facilities exist in lower socioeconomic areas.

**CONCLUSION:** The visual display of the distribution of facilities and their relation to areas of low SES or high CVD mortality is a potentially useful method of presenting data to legislators and public health policymakers.

**LEARNING OBJECTIVES:** Participants should be able to describe the use of geomapping in the study of the socioenvironmental determinants of CVD.

# Physical Activity Report, Georgia, 2001

S. Bricker, K. Powell, U. Parashar, A. Rowe, K. Troy, K. Seim,  
P. Eidson, P. Wilson, V. Pilgrim, E. Smith

2

TRACK

pg

**OBJECTIVE:** To provide information about the physical activity patterns of Georgians, the costs of inactivity, and examples of programs that promote physical activity in Georgia.

**SETTING:** Georgia adults.

**METHODS:** We used data from the Georgia Behavioral Risk Factor Surveillance System to classify respondents into three categories: regularly active, irregularly active, and inactive. For six conditions in which physical activity is known to reduce the risk, we calculated population attributable risk. We obtained information on commendable programs by contacting awardees of the Governor's Commission on Physical Fitness and Partners of the Georgia Cardiovascular Disease Prevention Initiative.

**RESULTS:** Survey results indicate that 24% of Georgia adults are regularly active, 49% are irregularly active, and 27% are inactive. Those living in southwest Georgia are more likely to be regularly active than those living elsewhere in the state. Women and men are equally likely to be regularly active. Persons aged  $\geq 65$  years are the least likely to be regularly active. Activity levels have declined over the past 15 years. Insufficient physical activity was responsible for an estimated 5,543 deaths, 29,844 hospitalizations, and \$476 million in hospital charges.

**CONCLUSIONS:** Though Georgia has several commendable programs that promote physical activity, only 27% of Georgians are regularly active, and the proportion is declining.

**LEARNING OBJECTIVES:** (1) To describe the prevalence of physical activity among adults in Georgia; (2) understand the cost in lives lost, hospitalizations, and hospital charges of physical inactivity; and (3) provide strategies for promoting physical activity in various settings and highlight existing programs in the state of Georgia.

## Food Service Limitations to Encouraging Fruit and Vegetable Consumption in Utah Middle Schools

K. Paras, C. Krstic, J. Ware

**OBJECTIVE:** To identify system barriers in providing fruit/vegetables in the school food service program and perceptions of food service personnel on their role in encouraging fruit/vegetable consumption by students.

**SETTING:** Studies on increasing fruit/vegetable consumption have focused on elementary school-aged children with few studies on adolescents. The school environment can contribute to adolescents establishing healthy dietary practices.

**METHOD:** Qualitative research, including interviews and focus groups, was conducted with school food service middle school managers, district coordinators, and supervisors.

**RESULTS:** District supervisors reported the student's home environment was a very important influence on the food choices made at school. Vending machines were also a source of competition for the school lunch program. To a lesser extent, time, money, training, and lack of personnel contributed to their inability to offer the types of fruits/vegetables students like. Food service managers reported lack of time and money as important issues. Promotional materials providing a cue for action to eat fruits/vegetables were inadequate because they were not designed for adolescents.

**CONCLUSIONS:** While many food service personnel perceive the types and variety of fruits/vegetables as inadequate, they feel even if menu changes were made, students' consumption would not improve. Their own opinions often influenced what they served. Many felt their role was to provide the meal, and it was up to the students to make healthy choices.

**LEARNING OBJECTIVE:** Participants should be able to describe perceived system barriers and attitudes of food service personnel related to enhancing consumption of fruits and vegetables by adolescents.

# Should Community Anxiety or Science Drive Cleanup? A Lead Story from Ontario

R.C. Williams, M. Decou

**OBJECTIVES:** (1) To study lead health burden for young children exposed to multiple contaminants and variable contaminant levels in soil through a blood screening survey, and (2) to review the factors for a successful process in an anxious community.

**SETTING:** A local health department's response, under mandate, to a community with unknown health burden related to heavy metal exposure.

**METHODOLOGY:** A community blood lead screening survey was carried out, targeted at children and pregnant women, in response to the recent release of an extensive soil contamination report confirming historical industrial sources. Traditional follow-up of elevated blood lead levels occurred. Recommendations were made to the community regarding remediation based on analysis of the blood and soil results.

**RESULTS:** Geometric means, stratified for age and location, were calculated for the community based on 1,066 samples. Other analyses included medians and blood/soil relationships. An organized and cohesive communication strategy was effective in getting participation and providing feedback to the anxious and litigious community. A sound scientific approach was demonstrated throughout the process but was challenged by other agendas, including community anxiety, media hype, conflicting guidelines and jurisdictions, and legal considerations.

**CONCLUSION:** Sound scientific decision-making led to no recommendation for immediate soil cleanup. A transparent process helped to decrease community anxiety.

**LEARNING OBJECTIVE:** Participants should have a good understanding of multiple pressures experienced at community level in the face of lead and other heavy metal soil contaminants and should be prepared to implement successful programming.

## Usability Testing of a Cancer Public Health Web Site

S. Allison, K. Carey

**OBJECTIVE:** To conduct a baseline assessment of a target audience's need for a public health Web site.

**BACKGROUND:** The Division of Cancer Prevention and Control (DCPC), Centers for Disease Control and Prevention (CDC), has increasingly turned to its Web site to disseminate information and resources, but has not yet solicited qualitative feedback from users and potential users. This effort marks the initial steps taken to ensure that the site is driven by audience needs and expectations.

**SETTING:** Interviews were conducted with users of [www.cdc.gov/cancer](http://www.cdc.gov/cancer) during the 2001 CDC Cancer Conference in Atlanta, Georgia, to determine the intuitiveness and usefulness of the site's resources and navigation. Interviewees varied by job function, experience with the Internet, and familiarity with the DCPC Web site.

**CONCLUSION:** We will report on the methods used to collect usability data for the DCPC Web site, analysis of the data, and findings related to the site's level of usability. The presentation will include how those findings were used to improve the DCPC Web site and recommendations for other agencies interested in assessing how their Web site is meeting the needs of users.

**LEARNING OBJECTIVES:** Participants will be able to identify (1) three methods to collect usability data for their agency's Web site, (2) understand the appropriate uses of various usability research methods, and (3) learn the potential impact usability testing can have on their agency's Web site.

# Osteoporosis Awareness and Attitudes Comparing Perceptions of Providers and Persons at Risk

A. Ballanoff, J. Alongi

**OBJECTIVE:** To examine awareness and attitudes about osteoporosis care and prevention education among health care providers and consumers.

**SETTING:** A foundation with expertise in osteoporosis-related health education and a state department of public health collaborated to assess communication gaps around osteoporosis.

**METHOD:** Thirty-one providers were interviewed in person or by telephone, and 63 consumers participated in eight focus groups at senior centers, exercise classes, or other community locations. Providers included public health nurses, health educators, nutritionists, senior center coordinators, private physicians, and other staff members at community health agencies. Data was analyzed using Ethnograph 5.0.

**RESULT:** Health professionals and the general public recognized the impact of osteoporosis. Strategies that providers felt worked to disseminate osteoporosis information often varied from effective strategies identified by community members. Barriers to effective dissemination of osteoporosis information fell into two major categories: organizational and individual barriers (i.e., cultural/linguistic appropriateness, limited resources, and accessibility).

**CONCLUSION:** Lack of knowledge about osteoporosis among providers and the general public raised concerns about strategies that relied on dissemination by community-based providers. Although many themes arose from the data, a highly flexible, easily tailored intervention would be most effective. Expanded collaboration between the state health department and other stakeholders was identified as a necessary component of any health education intervention.

**LEARNING OBJECTIVES:** Participants will be able to describe differences in providers' perceptions and consumers' reports concerning health information-seeking behaviors and will be able to identify potential media appropriate to overcome the barriers reported.

## Effectiveness of Fitness Fever on Families and School Environment

A. Rick, P. York, J. Geppert

**OBJECTIVE:** Evaluate the effectiveness of Fitness Fever materials on family and school staff perceptions of effects of multiyear participation on the school environment.

**SETTING:** Minnesota elementary schools.

**INTERVENTION:** Fitness Fever is a school-linked program promoting regular physical activity and consumption of fruits and vegetables that served nearly 300,000 elementary school students in the 6th year of the program. Focus groups were conducted with parents of students in eight elementary schools, a mail survey was included with family materials, and staff in participating schools were surveyed to assess the perceived impact of Fitness Fever on families and the effect of multiyear participation.

**OUTCOMES:** Focus group results indicated that family materials were (1) not well used by parents; (2) not perceived as directed at students; and (3) graphically too difficult to glean information from quickly. Family surveys indicated a range of opinion on family participation in Fitness Fever. Teachers in schools participating for >2 years indicated that students had a greater awareness of the importance of healthy eating and activity, with some showing residual behavior change. They also reported greater collaboration between food service staff and teachers and a more positive environment for healthy eating and activity.

**CONCLUSIONS:** Effective strategies to engage family participation remain elusive. Multiyear program participation has a positive effect on the school environment.

**LEARNING OBJECTIVES:** Participants should be able to describe factors affecting family participation and program perception of school-linked health programs and long-term outcomes on school environment of repeated participation in a nutrition and physical activity program.

# "I Don't": A Youth-Guided Tobacco Prevention Program

R. Marshall, R. Villarreal

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**PURPOSE OF THE PROGRAM:** To give teenagers the opportunity to use their ideas in a successful youth tobacco prevention program.

**SETTING:** A collaborative effort of the South Texas Health Research Center (STHRC) and local independent school districts in Bexar County set up a Tobacco Program Advisory Board made up of teenagers.

**INTERVENTIONS:** Under the guidance of STHRC staff and with the aid of local professional graphics artists, students developed public service announcements (PSAs), billboards, booklets, newsletters, a Web site, and other advertisements.

**OUTCOMES:** A total of 1,128 students (34 college, 514 high school, 128 middle school, 266 elementary, 186 other) responded positively to these messages by signing smoking abstinence commitment ("I don't") cards. These respondents came from 91 cities in Texas, another 5 U.S. states, and Germany. They represented 141 elementary schools, 71 middle schools, 84 high schools, and 20 universities. San Antonio accounted for 924 respondents. One PSA won a silver medal and two were awarded bronze medals in the World Fest-Houston International Film Festival.

**CONCLUSIONS:** The combination of excellence awards and data collected by the "I don't" card and Web site indicate that student input enhances the quality of prevention campaign material and contributes to a successful prevention campaign reaching a broad audience.

**LEARNING OBJECTIVES:** Participants should be able to create professional quality PSAs and other media to warn their communities of the dangers of smoking. Respondents will make informed decisions concerning smoking abstinence.

## How Consistent Is Infant Race at Birth and at Death on Vital Records?

W. Hellerstedt, P. Johnson, J. Oswald, C. Turnure

**OBJECTIVE:** The agreement of race coding on birth and death certificates for 3,142 infants who were born in Minnesota during 1990–1996 and died within 12 months was examined.

**SETTING:** Minnesota has large racial disparities in birth outcomes. Infant mortality is considered a key indicator of vulnerability.

**METHOD:** The reliability of the race coding (using a National Center for Health Statistics algorithm), and maternal and paternal correlates of reliability, were examined in multivariate analyses.

**RESULTS:** According to birth certificates, 78% of the infants who died were white, 11% African American, 5% American Indian, 4% Asian, and 2% had missing data. On the death certificates, the population distribution was within 1% by race, but 4.3% of the infants had different races at birth and death. Racial discordance was high among nonwhites at birth: 20% of the American Indian, 17% of the Asians, and 7% of the African Americans at birth were coded as white at death. The net loss in infant mortality among infants of color at birth was 12% of the American Indians and 17% of the Asians. Racial discordance was highest among infants born to teen fathers; American Indian or Asian mothers; nonwhite fathers; and parents with discordant races.

**CONCLUSION:** Vital records are used to describe populations at risk and are useful for examining low-occurring events such as infant mortality. However, these data suggest that analyses of vital records could underestimate infant mortality, or overestimate birth rates, among populations of color.

**LEARNING OBJECTIVE:** Participants should appreciate that vital records could underestimate or overestimate racial disparities in outcomes.

# Risk of Pregnancy-Induced Hypertension Among African American Women

W. Nembhard, Y. Liu, S. Davis

**OBJECTIVE:** The objective of this study was to determine rates of pregnancy-induced hypertension (PIH) and subtypes of PIH among African American women.

**SETTING:** Hypertension is a common complication in pregnancy that is associated with adverse maternal and fetal health outcomes. Studies have suggested that African American women are at increased risk for developing PIH.

**METHODS:** Computerized hospital discharge data from California were used to analyze incidence of PIH among African American women, aged 15–49, who delivered in a hospital, 1991–1998. Incidence rates (per 1,000 deliveries), rate ratios (RR), and 99% confidence intervals (CI) were calculated.

**RESULTS:** The rate of PIH among African American women increased by 19.9% from 1991 to 1998 in contrast to 7.7% for white women. Although African American women had higher rates of PIH overall, they were only slightly more likely to have PIH than white women (RR = 1.13, 99% CI: 1.10, 1.16). African American women also had higher rates for subtypes of PIH: transient hypertension, preeclampsia and eclampsia, but were only slightly more likely to have transient hypertension (RR = 1.11, 99% CI: 1.06, 1.15) or preeclampsia (RR = 1.11, 99% CI: 1.08, 1.15) than whites. However, African American women were twice as likely to have eclampsia than white women (RR = 1.98, 99% CI: 1.68, 2.32).

**CONCLUSIONS:** This evidence indicates little excess incidence of PIH overall, or transient hypertension and preeclampsia, among African American women. However, there is an excess incidence of eclampsia among African American women.

**LEARNING OBJECTIVE:** Participants should be able to describe the occurrence of PIH among African American women.

## Single-Parent Status and Hypertension Among African American Women: The Metro Atlanta Heart Disease Study

W. Nembhard, Y. Liu, C. Hutto-Woods, T. Jennings, R. Collins,  
S.K. Davis

**OBJECTIVE:** To examine the correlation between marital status and parenthood and hypertension prevalence in a sample of adult African American women.

**SETTING:** African Americans have a higher prevalence and magnitude of hypertension than white Americans. The Metro Atlanta Heart Disease Study (MAHDS) was a cross-sectional study designed, in part, to elucidate the correlations between social constraints and hypertension prevalence among African Americans.

**METHODS:** Self-reported and physiologic data were collected on 188 hypertensive and normotensive African American women, aged 21-83 years, residing in metropolitan Atlanta, Georgia, during 1999-2001, who participated in the MAHDS. Women were determined to have hypertension if their systolic blood pressure was  $\geq 140$  mm Hg, their diastolic blood pressure was  $\geq 90$  mmHg, or they were currently taking hypertensive medication. Odds ratios (ORs) and 95% confidence intervals (CIs) were calculated from multivariate logistic regression analyses.

**RESULTS:** Fifty percent of women were unmarried (i.e., divorced, separated, widowed, or never married) with children, 20% were unmarried without children, and 30% were married with children. After adjusting for the effect of age, income, day-to-day stress, and level social support, we found that unmarried women with children were 2.35 times more likely to be hypertensive than married women with children (95% CI: 0.92, 6.00), but that unmarried women without children were only 1.08 times more likely (OR = 1.08; 95% CI: 0.31, 3.71).

**CONCLUSION:** African American women who are single parents may be at increased risk for hypertension. Additional studies are needed to further explore this association.

**LEARNING OBJECTIVE:** Participants should be able to describe the prevalence of hypertension among African American women by marital and parental status.

# Differences in Health Outcomes by Education

L. Callahan, S. Currey, J. Milan, P. Sloane

**PURPOSE:** To examine the correlation between education level and the presence of chronic conditions and health status among patients followed in a clinical setting.

**SETTING:** Reducing disparities in health status is highlighted in *Healthy People 2010* objectives. To target interventions effectively, one must first unravel the social determinants of these disparities.

**METHOD:** For 1 month, all adult patients at 14 family practice sites across North Carolina (selected on urban/rural status and location) were invited to complete a self-report questionnaire assessing health status (SF-12v2 and Behavioral Risk Factor Surveillance System [BRFSS] Health-Related Quality of Life [HRQOL]), the presence of 12 common chronic conditions, and sociodemographic variables. A total of 3,680 patients participated.

**RESULTS:** In univariate analyses, lower levels of education were significantly associated with the presence of chronic conditions and poorer status on the SF-12v2 physical and mental health components, as well as BRFSS HRQOL general health, activity limitation, and healthy days measures (all  $P < .0001$ ). Adjusting for age, sex, race, and body mass index, we found that education remained significantly associated with chronic conditions. In further multivariable analyses additionally adjusted for chronic conditions, education was associated with all health status measures (all  $P < .001$ ).

**CONCLUSIONS:** Education is strongly associated with health status after adjustments for a number of relevant variables. Interventions for improving outcomes among patients followed in a clinical setting should be targeted toward patients with fewer years of formal education and those with low reading and health literacy levels.

**LEARNING OBJECTIVES:** Participants should be able to understand the significant role of education in determining health status outcomes of patients followed in the clinical setting.

## Effect of Prostate Cancer Screening Status on Treatment Decisions for Clinically Localized Disease

N. Stone, D. Espey, R. Hoffman

**OBJECTIVE:** To compare treatment decisions for clinically localized prostate cancer (CaP) of men diagnosed by screening (S) with those of men with benign prostatic hyperplasia symptoms (BPH) and with those with constitutional symptoms (C).

**SETTING:** Prostate Cancer Outcomes Study, a population-based study of men diagnosed with CaP from October 1994 through October 1995 in six Surveillance Epidemiology and End Results sites (New Mexico, Connecticut, Utah, Los Angeles, Seattle, Atlanta).

**METHODS:** Baseline data were obtained from patient surveys and medical record reviews. Surgery and/or radiation were categorized as curative treatment, whereas androgen deprivation and watchful waiting were considered conservative treatment. The association between screening status and treatment selection was assessed using weighted logistic regression techniques in SUDAAN.

**RESULT:** Among 2,796 men with clinically localized CaP, 32% were S, 59% BPH, and 9% C. Screening subjects were younger and had higher socioeconomic status (SES) and better health. After adjusting for demographics, SES, comorbidity, and insurance status, we found that S were more likely to receive aggressive treatment than C (odds ratio [OR] 1.66; 95% confidence interval [CI] = 1.03-2.66) or BPH (OR 1.20; 95% CI = 0.91-1.60).

**CONCLUSION:** Men with clinically localized CaP detected by screening were more likely to undergo curative treatment than men diagnosed with either BPH or constitutional symptoms.

**LEARNING OBJECTIVE:** Participants should be able to discuss how screening history may be associated with selecting curative therapy for clinically localized CaP.

# Screening for Diabetes in an African American Community: The Project DIRECT Experience

D. Porterfield, R. Din, A. Burroughs, R. Petteway, B. Lamb,  
M. Engelgau

**PURPOSE OF THE PROGRAM:** To determine the feasibility of detecting undiagnosed diabetes among African Americans in southeast Raleigh, North Carolina, and of entering these persons into the health care system.

**SETTING:** Project DIRECT is a diabetes demonstration project in southeast Raleigh involving a partnership among the southeast Raleigh community, state and local public health agencies, and the Centers for Disease Control and Prevention.

**INTERVENTIONS:** Screening events ( $n = 183$ ) were conducted from December 1996 through June 1999 in community settings. Persons eligible for screening received a capillary glucose measurement; thresholds for referral were based on time since last food intake. Referrals for diagnostic testing were made to the county laboratory for oral glucose tolerance testing (OGTT) or to the participant's provider. Criteria for diagnosed diabetes were a fasting glucose level  $>140$  mg/dL or a 2-hour OGTT level  $>200$  mg/dL; alternatively, a report from a provider or a patient's oral confirmation of a provider's diagnosis was accepted. Patients with diagnosed diabetes were referred to primary care.

**OUTCOMES:** Of 3,356 registered adults, 83% were African American. Among 3,187 persons eligible for screening, risk factors included obesity, 44%; physical inactivity, 45%; and family history, 42%. Of 215 persons with a positive screen who were referred for further testing, 53 had diabetes (prevalence rate of 1.7%), and 45 of these were successfully referred to care. Referral or follow-up was incomplete for 24%.

**CONCLUSIONS:** Although the intervention was successful in reaching African Americans with risk factors for diabetes, the prevalence of undiagnosed diabetes was low. The Project DIRECT experience supports the American Diabetes Association recommendation against community-based screening.

**LEARNING OBJECTIVES:** Participants will be able to describe the findings of the Project DIRECT screening intervention and will understand these results in the context of current screening recommendations.

## Identifying Racial Differences in Functional and Mental Health Status Among Older Missouri Adults

A.D. Deshpande, E.J. Simoes, T. Murayi

**OBJECTIVE:** To examine the relationship between race/ethnicity and functional and mental health status among people at least 60 years old.

**SETTING:** Older adults are faced with the challenges of functional and/or mental health impairments. An examination of racial/ethnic differences in functional or mental health status in the elderly population is needed. Such information is crucial to the development of programs and services for the elderly.

**METHOD:** We conducted a statewide, random telephone-based survey among 3,086 people aged 60 years and older in Missouri and divided the respondents into three racial groups: black, white, and other. We created index variables for independence of daily living and mental health status. We used logistic regression to identify factors independently associated with dependency in daily living or mental health status.

**RESULT:** Blacks (OR 2.00, 95% CI 1.44-2.76) and others (OR 3.71, 95% CI 2.00-6.89) were more likely than whites to be dependent in daily living. We found no racial differences for mental health status. Within the white subgroup, women were more likely than men to be dependent in daily living (odds ratio [OR] 1.59, 95% confidence interval [CI] 1.26-2.00), but less likely to have mental health challenges (OR 0.53, 95% CI 0.42-0.66).

**CONCLUSION:** There are significant racial disparities in independence in daily living among older adults in Missouri. Within racial groups, some disparity may exist between men and women. Further work is needed to explain these relationships and to reduce these disparities.

**LEARNING OBJECTIVE:** Participants should be able to identify (1) racial differences in functional or mental health status among older adults in Missouri; and (2) factors associated with these outcomes within race/ethnicity subgroups.

# Rare Chronic Disorders in Guam: Regional Partnership Improves Hemophilia Treatment, Research, and Advocacy

J. Baker

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**PURPOSE OF THE PROGRAM:** To reduce hemophilia complications by building Guam's local expertise in hemophilia diagnosis, treatment, research, and advocacy.

**SETTING:** Guam Department of Health and Social Services (DPHSS) and the Federal Hemophilia Treatment Center Program/Region IX.

**INTERVENTIONS:** Region IX's 1996 Pacific Hemophilia survey identified 48 Guamanian clinicians who cared for persons with suspected or diagnosed inherited bleeding disorders. With technical assistance from Region IX, the Medical Social Services Division of DPHSS, local health care agencies, and affected families created the Guam Comprehensive Hemophilia Care Program (GCHCP), a multidisciplinary clinical team, and the Hemophilia Foundation of Guam (HFOG). GCHCP clinicians received training in diagnosis, management, and clinical research. Computer capability facilitated electronic consultation with stateside clinician mentors. HFOG leaders attended mainland conferences for professional networking.

**OUTCOMES:** The GCHCP registry includes nearly 50 patients. Of these, 75% have learned medically supervised self-infusion, thus reducing the number of days lost from work or school and eliminating hospital visits and emergency transport to Hawaii. Nearly 80% of eligible persons participate in the Centers for Disease Control and Prevention's nationwide hemophilia complications surveillance. HFOG has a youth group, obtained a grant to organize its first family camp, and obtained funds for coverage of hemophilia medication in the government-sponsored health plan.

**CONCLUSIONS:** By extending regional technical assistance, local clinical, research, and advocacy expertise was built, which resulted in improved health of Guamanians with inherited bleeding disorders.

**LEARNING OBJECTIVES:** Participants will learn how to overcome distance barriers to create partnerships and build infrastructure to improve the health of persons with rare, chronic, inherited conditions.

## The Cardiovascular Health Practitioner's Institute: Skill-Building for Partners

J. Brownstein, S. McIntosh, N. Hernandez, T. Pearson, D. Labarthe,  
N. Keenan, G. Mensah, N. Watkins, L. Redman

**PURPOSE OF THE PROGRAM:** The Cardiovascular Health Practitioner's Institute was created to help public health professionals and their American Heart Association (AHA) partners develop capacity to collaboratively plan and coordinate resources for comprehensive approaches to reducing of the burden of cardiovascular disease (CVD) and stroke in all states.

**SETTING:** Meetings of the institute were held in Mountain Lake, Virginia, in October 1999 and May 2001. Attending from each invited state were the CVH state program coordinator or a staff member from the chronic disease section and a representative for the state affiliate of the AHA. Public health workers from selected countries outside the United States also participated.

**INTERVENTIONS:** The goal is to enhance these professionals' abilities to coordinate, develop, and evaluate comprehensive public health programs for CVD prevention and control, the reduction of related risk factors, and the promotion of cardiovascular health.

**RESULTS:** The program has helped participants improve their knowledge and skills in six key areas: surveillance, evaluation, partnership building and maintenance, the creation of a common vision and comprehensive population-based plans, communications and social marketing, and advocacy for policy and environmental change in support of heart health and quality care.

**CONCLUSIONS:** Evaluative feedback was used to enhance the content of the second meeting of the institute. Feedback from the 2001 meeting indicates that learning objectives are being met.

**LEARNING OBJECTIVES:** Participants will be able to identify ways in which public health professionals and their partners learn state-of-the-art information regarding heart disease and stroke; develop practical skills; and share resources, data, and best practices for community- and state-level interventions.

# Fragmentation of Health Care Among Older Adults Receiving Care in an Urban Public Hospital

M. Weiner, T. Stump, C. Callahan, S. Counsell, J. Lewis

**OBJECTIVE:** To identify patterns in the fragmentation of health care among vulnerable older adults.

**SETTING:** Older adults with multiple chronic illnesses may benefit from better coordination of care. Methods of applying administrative and clinical data to study fragmented care are underdeveloped and understudied.

**METHOD:** We linked 1995–1999 Medicare data to clinical data of vulnerable older adults receiving care in an urban public health system. We then compared demographic characteristics and health care rates of this group (A) with those of older adults living in the surrounding community but receiving care from other systems (B).

**RESULT:** Group A (N=18,374) had a higher percentage of African Americans (32% vs. 10%), Medicaid recipients (16% vs. 5%), and people with chronic illness (mean Charlson index 3.8 vs. 3.1) than group B (N=55,630). Group A had a higher mean per capita Medicare payment (\$27,638 vs. \$17,938 unadjusted), even after adjustments for demographics and comorbidity. Patients admitted to the public hospital were more likely to be admitted to more than one hospital than were patients admitted to a private hospital (38% vs. 26%). All of these differences were significant ( $P=0.05$ ). Group A also had a higher rate of more inpatient care (2,999 vs. 1,733 hospital days per 1,000 people with medical encounters). About half of group A members failed to have an expected encounter.

**CONCLUSION:** Patients treated in an urban public hospital had more chronic illness, Medicare expenditures, and fragmented care. This finding suggests opportunities to improve quality and decrease costs through more coordinated care.

**LEARNING OBJECTIVE:** Describe the extent of fragmented care for an Indiana population.

## Reaching Minority Populations in Rural and Inner-City Underserved Areas with P.A.C.E.

R. Clancy, J. Boyd, S. Hodson

**PURPOSE OF THE PROGRAM:** To increase arthritis awareness and quality of life among persons with arthritis by providing self-management training to diverse populations.

**SETTING:** Rural and inner-city underserved areas in Illinois.

**INTERVENTION:** The Arthritis Foundation, Greater Illinois and Greater Chicago chapters, are conducting P.A.C.E. (Persons with Arthritis Can Exercise) leadership training and classes; partnering with the Illinois Department on Aging, the Chicago Department on Aging, area agencies on aging (AAAs), local health departments (LHDs), parish nurses/churches, University of Illinois (UI) nutrition sites, and rural hospitals; and targeting minority, underserved and rural groups. P.A.C.E. classes were marketed to health care providers, senior centers, and nutrition sites.

**OUTCOMES:** "Win-win" situations were created with partners, who were enthusiastic about potentially improving community health and engaging members of diverse groups in P.A.C.E. activities. LHDs were able to form partnerships within their communities. The project fulfilled mandates of the UI nutrition sites to provide physical activity programs and of the AAAs to provide health promotion. Target groups were receptive to the program and appreciative of having self-management training brought directly to their communities. Several new partnerships were formed, and existing partnerships were strengthened. Partners worked toward meeting their own organizations' goals while contributing to meeting those of the Illinois Arthritis Initiative. Arthritis self-management techniques were taught to minorities and underserved and rural groups, and this instruction will be continued.

**CONCLUSIONS:** Partnerships can be enhanced through mutually beneficial programs. Assessing what partners need and the resources they already have is a creative way to form strong collaborations.

**LEARNING OBJECTIVE:** Participants will be able to state three ways to form creative partnerships and use "win-win" situations to successfully engage partners.

# Evaluation of the Missouri Arthritis and Osteoporosis Program

G. Shetty, V. Beatty, N. Kabeer, M. Ankeney

**OBJECTIVE:** To evaluate arthritis-related services offered through the Regional Arthritis Centers (RACs) in Missouri.

**SETTING:** RACs have been a strong component of the Missouri Arthritis and Osteoporosis Program (MAOP) and have provided community-based arthritis programs to Missouri's population over the last 15 years. Focus groups were conducted to evaluate these services by (1) examining specific information and service needs of individuals served by the RACs; (2) exploring reasons why people use the programs, the benefits they received, and their level of satisfaction; and (3) assessing the impact of the MAOP on the quality of life of individuals with arthritis.

**METHOD:** Seven focus groups were conducted across Missouri. Participants for the focus groups were randomly chosen from the mailing list at each of seven RACs. Each focus group interview consisted of eight questions and lasted approximately 90 minutes. Focus group participants were either receiving care or had received care through the RACs. There was an attempt to achieve racial and ethnic diversity.

**RESULTS:** Almost all the participants said that they had benefited from the various programs that were offered through the RAC. They said that the exercise programs and the self-help classes helped them to manage their pain better and also to manage their depression. The classes also educated them on how to pace themselves and to prioritize their everyday activities. This changed the way they viewed their disease and their life, thus helping them achieve an overall better quality of life.

**CONCLUSIONS:** Responses from participants in the seven focus groups strongly indicate that the programs offered through the RACs are (1) beneficial to people with arthritis and (2) an essential component of the MAOP.

**LEARNING OBJECTIVE:** Participants should be able to describe a population-based model for community-based interventions.

## Partnering with Federally Qualified Community Health Centers on a Shoestring Budget

J. Reaves, A. Wang, M. Wolf, D. Porterfield

**OBJECTIVE:** To describe the elements of effective partnering and the outcomes of a partnership between a state health department and federally qualified community health centers in improving diabetes preventive care in North Carolina.

**SETTING:** The partnership developed between the North Carolina Diabetes Control Program and community health centers within the state that participate in the Bureau of Primary Health Care's National Diabetes Collaborative.

**INTERVENTIONS:** A statewide listserv and Web site, resource dissemination, joint participation in national training, and continuing education/sharing sessions facilitated by the state.

**OUTCOMES:** The benefits of the partnership for the centers include access to expertise from previous participants, a forum within which to share lessons learned, and access to tools and resources. Benefits for the state health department are the enhanced dissemination of the chronic care and improvement models to other settings and the inclusion of partners on advisory councils/boards that impact policy. The partnership has been successful perhaps because of participants' previous work history with centers, ongoing contact and communication among sites, and the partnerships' access to preventive medicine residents from a local medical school.

**CONCLUSION:** Partnering with local community health centers has been beneficial for all partners and is an efficient means of spreading models of quality improvement and systems change across the state.

**LEARNING OBJECTIVE:** Participants will acquire a general framework and tools for approaching and partnering with other organizations with similar missions.

# A Status Report on Health Promotion/Disease Prevention Activities for Older Adults: The Aging States Project

R. Palombo, R. Greene, A. Harris, S. Smith, A. Annunziada,  
W. L. Ooi, G. Case

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**PURPOSE OF THE PROGRAM:** To provide strategies for more effective health promotion/disease prevention activities for older adults by combining strengths of the public health and aging networks.

**SETTING:** The Aging States Project, a partnership between Centers for Disease Control and Prevention (CDC), the administration on Aging (AoA), state health departments (SHDs), and state units on aging (SUAs), developed a needs assessment to determine the types and extent of health promotion/disease prevention activities throughout public health and aging networks. An advisory committee guided the project's development.

**INTERVENTIONS:** A needs assessment was conducted throughout SHDs and SUAs to identify the current health promotion/disease prevention activities of older adults, the major health needs of seniors and barriers to addressing these needs, and opportunities for enhanced collaboration between SHDs and SUAs.

**OUTCOMES:** We identified a range of health promotion/disease prevention activities within public health and aging networks. The type, breadth, and depth of these activities varied across states. We also identified successful programmatic efforts, best practices, and opportunities for enhanced collaboration between SHDs and SUAs, as well as barriers and challenges to addressing the needs of older adults.

**CONCLUSIONS:** The Aging States Project provides rich data regarding health promotion/disease prevention activities within public health and aging networks. These data can be used to design programs to address the health promotion/disease prevention needs of older adults more effectively as well as enhance collaborative activities at the state and local levels.

**LEARNING OBJECTIVES:** Participants will be able to identify major health promotion needs of older adults, the challenges to addressing these needs, current health promotion activities for older adults, and opportunities for collaboration between SHDs and SUAs.



## Increased Mortality in the Elderly with Arthritis

R. Maisiak, R. Allman, P. Baker, J. Roseman

**OBJECTIVE:** To determine to what extent self-reported arthritis (SRA) is a risk factor for premature death among the elderly.

**SETTING:** The original sample was based on random sampling of community-dwelling older persons of one state who were interviewed during 1986–1987 in their households.

**METHOD:** The follow-up study cohort was limited to the 673 persons aged  $\geq 65$  years from that survey. SRA determined to be present if the respondent answered “yes” to the question, “In the past year has the doctor told you [that] you had arthritis [or] rheumatism?” A Cox proportional hazards regression model was used to estimate the relative risk (RR) for death after adjustment for demographic factors.

**RESULTS:** The ages of the participants at the original interview ranged from 65 to 94 years (mean age 74.0), and 59% had SRA at baseline. The mean follow-up period was 12.8 years. The mortality rate during the follow-up period for those with SRA was 58% vs. 42% for those without SRA. The RRs of dying during the follow-up period were 1.44 for having SRA (1.06 after adjustment for age), 1.57 for being male, 1.05 for being white, and 0.89 for having 9 or more years of education. Respondents with SRA lost a mean of 1.0 years of life compared with those without SRA.

**CONCLUSION:** Results indicated that SRA in the elderly was a significant risk factor for premature death, independent of demographic factors.

**LEARNING OBJECTIVE:** Participants should learn how much of a risk factor arthritis is for premature death among the elderly.

# Social Constraints and CVD Risk-Factor Clustering Among African Americans: The Metro Atlanta Heart Disease Study

R. Collins, Y. Liu, W. Nembhard, C. Hutto-Woods, T. Jennings,  
D. Sellers, S. Davis

**OBJECTIVE:** To examine the impact of social constraints on cardiovascular disease (CVD) risk-factor clustering in a sample of adult African Americans.

**SETTING:** CVD risk-factor clustering dramatically increases mortality. Few studies have examined the effect of social constraints on risk-factor clustering. The Metro Atlanta Heart Disease Study (MAHDS) was a cross-sectional study designed, in part, to elucidate the associations between social constraints and hypertension prevalence among African Americans.

**METHOD:** Self-reported and physiologic data were collected on a sample of 356 African American adults (196 women and 160 men) aged 21–83 residing in metropolitan Atlanta, Georgia, during 1999–2001. Sex-specific logistic regressions were used to estimate the impact of social constraints (i.e., daily stress, social support, unsafe neighborhood, racism, discrimination, and living location) on the clustering of CVD risk factors. Odds ratios (ORs) and 95% confidence intervals (CIs) are reported. Age and socioeconomic status served as covariates.

**RESULT:** Women and men with higher daily stress were 1.6 (CI: 1.08, 2.51) and 1.4 (CI: 0.98, 2.10) times (respectively) more likely to have >2 CVD risk factors. Furthermore, women who perceived their neighborhood as unsafe were also more likely to have >2 CVD risk factors (OR = 1.4; CI: 0.89, 2.22). Living location, racism, and discrimination were not significantly associated with having multiple risk factors.

**CONCLUSION:** Daily stress was associated with increased risk-factor clustering among both women and men, whereas neighborhood safety was associated only among women. The results suggest that social constraints play a role in the prevalence of CVD risk-factor clustering.

**LEARNING OBJECTIVE:** Participants should be able to describe social constraints associated with CVD risk-factor clustering among African American women and men.

## Correlations Between Tooth Loss and Stroke Risk—BRFSS 1999

P. Eke, S. Williams, L. Barker, D. Malvitz

**OBJECTIVE:** To examine the association between self-reported extent of tooth loss and history of stroke in twenty states that used the cardio-vascular disease (CVD) module in the Behavioral Risk Factor Surveillance System (BRFSS) in 1999.

**SETTING:** Chronic periodontal infection is a leading cause of tooth loss in adults. Biologically plausible systemic effects of chronic periodontal infections include the initiation or exacerbation of atherosclerosis and thrombosis, which would increase a person's risk for stroke.

**METHODS:** Tooth loss was used as surrogate measure for periodontal infection. The dependent response was yes or no to the survey question, "Have you ever been told by your doctor that you had a stroke?" We used logistic regression in SUDAAN to estimate crude associations and adjusted estimates from 8,043 observations (approximately 10.4 million weighted observations) while controlling for age, sex, race and ethnicity, smoking, diabetes, high blood pressure, high cholesterol, history of CHD, obesity, chronic drinking, and use of aspirin to prevent stroke.

**RESULTS:** Associations between extent of tooth loss and risk for stroke (odds ratio [OR] and 95% confidence intervals).

	Crude OR	Adjusted OR
No tooth loss (Reference)	1.00	1.00
5 or fewer teeth lost	1.84 (1.37 – 2.46)	1.33 (0.82 – 2.15)
6 or more teeth lost but not all	5.21 (3.95 – 6.87)	1.66 (1.02 – 2.71)
All teeth lost	9.11 (6.85 – 12.09)	2.41 (1.42 – 4.09)
Test for Trend*	P <0.001	P <0.001

\* From SAS

**CONCLUSIONS:** Overall, extent of tooth loss was significantly associated with risk for stroke even after known risk factors for stroke were controlled for.

**LEARNING OBJECTIVES:** Chronic periodontal infections may be a potentially modifiable risk factor for stroke.

# Correlations Between Tooth Loss and Coronary Heart Disease (CHD) Risk— BRFSS 1999

P. Eke, S. Williams, L. Barker, D. Malvitz

**OBJECTIVE:** To examine the association between self-reported extent of tooth loss and history of coronary heart disease (CHD) from 20 states that used the cardiovascular disease module in the Behavioral Risk Factor Surveillance System (BRFSS) in 1999.

**SETTING:** Chronic periodontal infection is a leading cause of tooth loss in adults. Biologically plausible systemic effects of chronic periodontal infections include the initiation or exacerbation of coronary atherosclerosis and thrombosis, which would increase a person's risk for ischemic coronary events.

**METHODS:** Tooth loss was used as a surrogate measure for periodontal infection. The dependent response was constructed from survey responses to the following two questions (yes to one or both questions vs. no to both questions): "Have you ever been told you have CHD?" and "Have you ever been told you had heart attack?" We used logistic regression in SUDAAN to estimate crude associations and adjusted estimates from 9,242 observations (approximately 15 million weighted observations) while controlling for age, sex, race and ethnicity, smoking, diabetes, high blood pressure, high cholesterol, obesity, chronic drinking, and physical activity.

**RESULTS:** Associations between extent of tooth loss and risk for CHD (odds ratio [ORs] and 95% confidence intervals).

	Crude OR	Adjusted OR
No tooth loss (reference)	1.00	1.00
<5 teeth lost	2.36 (1.97-2.82)	1.62 (1.12-2.33)
>6 teeth lost but not all	6.29 (5.25-7.54)	1.58 (1.01-2.45)
All teeth lost	9.11 (7.59-10.93)	2.17 (1.40-3.38)
Test for trend*	P <0.001	P <0.001

\* From SAS.

**CONCLUSION:** Overall, extent of tooth loss was significantly associated with risk for CHD even after other risk factors for CHD were controlled for.

**LEARNING OBJECTIVE:** Chronic periodontal infections may be a potentially modifiable risk factor for coronary heart disease.



## Diabetes in North Carolina: Are We on Track for Healthy People 2010?

K. Donahue, D. Porterfield, J. Reaves, Z. Gizlice

**OBJECTIVE:** To describe rates and trends for diabetes indicators in North Carolina (NC) in relation to the *Healthy People (HP) 2010* objectives.

**METHOD:** The diabetes indicators were obtained from the NC Behavioral Risk Factor Surveillance System (BRFSS). Questions included diabetes prevalence, daily blood sugar monitoring, annual hemoglobin A<sub>1c</sub>, eye examinations, foot examinations, and immunizations. Using SAS and SUDAAN software, we performed simple linear regression to identify trends and to project rates for 2010.

**RESULT:** Diabetes prevalence increased from 4.2% in 1994 to 6.4% in 2000 ( $P < 0.001$ ). If current trends continued, 10.8% are expected to have diabetes in 2010. All diabetes indicators increased except for frequency of foot examinations per year, which decreased from 85.8% to 70.9% ( $P < 0.001$ ). Trends were not significant for annual eye examinations and hemoglobin A<sub>1c</sub> tests. The only indicator projected to reach 2010 goals is percentage of diabetes patients doing daily blood glucose monitoring, which increased from 33.1% to 45.5% in 2000 and is expected to reach 70% in 2010 ( $P = 0.004$ ). Flu and pneumonia immunization rates rose significantly between 1995 and 2000, and an estimated 74% of adults with diabetes will be immunized against influenza and pneumonia in 2010.

**CONCLUSION:** Most diabetes indicators fall short of *HP 2010* objectives. Reversing the decline in rates of foot examination, and increasing other indicators of diabetes care, such as eye examination and influenza vaccination, appear to be appropriate goals.

**LEARNING OBJECTIVE:** Participants will be able to evaluate current trends in diabetes indicators.

# Variation in Asthma Hospitalization Rates by Town Size, Poverty Level, and Ethnicity in Massachusetts

L. Leypoldt, E. Conlisk

**OBJECTIVE:** To examine differences in asthma hospitalization rates in Massachusetts towns using small-area analysis.

**SETTING:** Asthma hospitalization rates, which have been studied primarily in large cities, have been found to be elevated in poor, minority, urban communities. We examined variation in asthma hospitalization rates in towns ranging from 10,000 to 650,000 residents, controlling for poverty and ethnicity.

**METHOD:** The Uniform Hospital Discharge Data Set for 1996–1998 was used to calculate age-adjusted asthma hospitalization rates for Massachusetts towns (>10,000 residents) based on the patient's home address. Ethnicity-specific rates were also computed. Towns were categorized by population size: small (10,000–60,000), midsized (60,00–1100,000) and large (100,000–650,000). Towns were also divided into three poverty groups according to the percentage of households falling below the poverty level: low (0%–8.49%), medium (8.5%–16.9%), and high (17%+).

**RESULT:** Asthma hospitalization rates increased with the size of the town: 111 per 100,000 for small, 170 per 100,000 for midsized, and 266 per 100,000 for large. However, this gradient was diminished or eliminated within each poverty group. Among towns with high poverty, asthma hospitalization did not vary with town size (284 per 100,000 for small, 247 per 100,000 for midsized, and 286 per 100,000 for large). Ethnicity explained less of the variation in rates than did poverty.

**CONCLUSION:** The asthma hospitalization rate for small Massachusetts towns with high poverty was equal to that for large cities. Poverty may explain the observed difference in asthma hospitalization rates by urbanicity.

**LEARNING OBJECTIVE:** Participants will be able to describe variation in asthma hospitalization rates by town size and poverty.

## Arthritis Prevalence and Health Status Among Utah Residents with Arthritis, by Education Level

R.C. Bullough, R. Tanner, M. Friedrichs, L. Larsen

**OBJECTIVE:** To examine arthritis prevalence and assess health status among Utah residents with arthritis, by education level.

**SETTING:** Often individuals with lower education levels have an increased prevalence of chronic conditions. However, little is known about this relationship with respect to arthritis. Also, the relationship between health status and education level among those with arthritis remains unclear.

**METHODS:** We used year 2000 data from the Behavioral Risk Factor Surveillance System. Arthritis was defined as chronic joint symptoms or doctor-diagnosed arthritis. Health status and education level were determined using the same survey.

**RESULTS:** Arthritis prevalence did not change by education level. Prevalence rates were 30%, 34%, 31%, and 28% for individuals who did not graduate from high school, graduated from high school, had some post-high school education, and graduated from college, respectively. Health status declined with education level among those with arthritis. The proportions of those with arthritis reporting fair or poor health were 45%, 25%, 23%, and 12%, respectively, for the same education levels reported above.

**CONCLUSIONS:** Education level does not appear to be associated with arthritis prevalence. Therefore, it seems this is not an appropriate measure of risk/need. However, further analysis reveals that education level is associated with health status among those with arthritis.

**LEARNING OBJECTIVES:** Participants should be aware of the correlation between education and health status among people with arthritis. They should also understand the importance of looking beyond prevalence data when focusing resources and identifying target populations for potential health improvement interventions.

# Child Health on Radionuclide-Contaminated Territory

Y. Yarmolenko

**PURPOSE OF THE PROGRAM:** To examine disease incidence among children who lived on radionuclide-contaminated territory.

**SETTING:** Territory contaminated with Cesium-137 (1-5 KI/sq km) in Chortkiv region, Ternopil, Russia.

**METHOD:** In 2000, a team of experts evaluated the health of 343 children (171 boys and 172 girls; group A) born in 1986—the year of the Chornobyl accident. These children were exposed to radioactive iodine in 1986, and during the past 15 years have been under the influence of small doses of radiation. For purposes of comparison, the team also evaluated the health of 235 children (118 boys and 117 girls; group B) born in 1991, i.e., 5 years after the accident.

**RESULTS:** Twenty-two percent of boys and 17% of girls in group A, and 14.4% of boys and 9.4% of girls in group B appeared to be completely healthy. Chronic diseases were detected in 30% of boys and 35% of girls in group A, and in 13.5% of boys and 22% of girls in group B. Respiratory diseases were the most common (990/1000), followed by diseases of the digestive (233) and endocrine systems (159).

In group A, girls had twice the goiter incidence of boys, and in group B, girls had three times the goiter incidence.

**CONCLUSION:** The “chronic” influence of small doses of radiation deteriorates the overall health of children especially affected are children whose mothers carried their pregnancies in radiation-contaminated territories.

**LEARNING OBJECTIVE:** Participants should be able to estimate the effects of small doses of radiation on the development of chronic diseases in children and predict their state of health in adolescence.

## Chronic Conditions and Health Status Among Adult Patients in the Family Practice Setting

S. Currey, J. Milan, P. Sloane, L. Callahan

**PURPOSE:** To examine the prevalence of self-reported chronic conditions among adult patients at family practice setting (FPS).

**SETTING:** Reducing the burden of chronic conditions is an important focus of *Healthy People 2010* objectives. As the typical health care entry point, the FPS holds potential for public health collaborations.

**METHOD:** For 1 month, all adult patients in 14 FPS sites across North Carolina (selected by urban/rural status and location) were invited to complete a self-report questionnaire concerning their health status (SF-12v2 and the Behavioral Risk Factor Surveillance System [BRFSS] Health-Related Quality of Life [HRQOL], the presence of 12 common chronic conditions, and sociodemographic variables.

**RESULTS:** In the sample ( $N=3,680$ ), 33% reported no conditions, 25% only one, and 42% two or more. Hypertension was the most frequently reported (35%), followed by depression (29%), arthritis (26%), back pain (25%), diabetes (16%), gastrointestinal problems (12%), and heart disease (11%). After adjusting for age, sex, race, education, and body mass index, we found that individuals with two or more conditions reported poorer overall health than did those with one condition or no conditions (all  $P < .0001$ ). Similarly, those with one condition reported poorer health than did those with none (all  $P < .0001$ ). In all analyses, the presence of chronic conditions was strongly associated with overall health status.

**CONCLUSIONS:** The presence of one or more chronic conditions is highly associated with poorer health status. Given the reach of the FPS for health care access, it is an important potential site for targeted interventions and public health messages.

**LEARNING OBJECTIVES:** Participants should be able to understand (1) the significant role chronic conditions play in health status, and (2) the value of the FPS as a site for public health collaboration.

# Prenatal Substance Use: Are Abused Women at Greater Risk?

P Johnson, W Hellerstedt

**OBJECTIVE:** To examine differences in prenatal substance use between women with current or past histories of abuse and women with no abuse histories.

**SETTING:** Prenatal substance use has been linked to adverse birth outcomes, as well as chronic health problems in infancy and childhood. Abuse, in general, may be related to substance use, but little is documented about the differential effects of abuse type on prenatal substance use.

**METHOD:** Data from 726 prenatal charts at an urban midwestern clinic were examined. Abuse history was modeled as a dichotomous exposure and, in separate analyses, as mutually exclusive abuse categories representing abuse type (physical, sexual) and timing (current, past). Prenatal substance use encompassed use of tobacco, alcohol, or illicit drugs. Logistic regression analyses were used to estimate the odds of a woman's using each substance given her particular abuse history.

**RESULTS:** After adjusting for maternal demographics, we found that abused women were 1.6 times more likely to smoke, twice as likely to use alcohol, and nearly 4 times more likely to use illicit drugs. Examination by abuse category revealed that past abuse was a stronger marker for prenatal tobacco and alcohol use than current abuse. The magnitude of effect varied by abuse type and by substance used. Women with past histories of combined physical and sexual abuse were at greatest risk for prenatal substance use.

**CONCLUSION:** Abused women are at substantial risk for prenatal substance use. Further research may help illuminate the role that abuse plays in prenatal substance use.

**LEARNING OBJECTIVES:** Participants will (1) be able to describe the association between abuse history and prenatal substance use and (2) appreciate the importance of distinguishing between types of abuse in studies of maternal health behaviors.

## Comparison of Cognitive and Emotional Functioning Among Healthy Seniors and Seniors with Epilepsy

R. Martin, L. Vogtle, P. Price, M. Mackey, S. Wiseman

**OBJECTIVE:** To compare cognitive and emotional functioning of elderly adults with and without epilepsy by using standardized neuropsychological measures.

**SETTING:** Cognitive and emotional functioning significantly impact health-related quality of life (HRQOL) ratings among young adults with epilepsy. However, little is known about the effects of epilepsy on HRQOL among senior adults.

**METHOD:** Standardized measures of neuropsychological function were collected as part of an ongoing study investigating HRQOL in seniors. Cognitive measures included tests of memory, motor speed, executive function, and language. Emotional status was measured with the Profile of Mood States (POMS). Nine adults with epilepsy and 18 healthy adults without epilepsy have completed testing to date. All subjects were at least 60 years old, lived independently, and had no history of drug/alcohol abuse or life-threatening medical conditions.

**RESULTS:** Seniors with epilepsy were younger (65 vs. 72 years,  $P < .001$ ) and more educated (14 vs. 11 years,  $P < .02$ ) than healthy seniors without epilepsy. Although the groups did not differ significantly on any of the cognitive measures ( $P < .05$ ), those with epilepsy scored somewhat lower on tests of memory ( $P < .13$ ), language ( $P < .14$ ), and mood ratings ( $P < .07$ ).

**CONCLUSIONS:** Preliminary data suggest that epilepsy may have mild negative cognitive and emotional effects. Even though the seniors with epilepsy were better educated and younger, they still scored lower on several of the standardized measures. More definitive statements will be possible as the study progresses and additional data are collected.

**LEARNING OBJECTIVE:** Participants should be able to identify cognitive and emotional elements of HRQOL on which seniors with epilepsy score lower than healthy seniors without epilepsy.

# Behaviors and Social Contexts of U.S. Adolescents Who Anticipate Early Death

*M.D. Resnick, R. Sieving, I. Borowsky, M. Ireland, H. Libbey*

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**OBJECTIVE:** To examine life circumstances and risky behaviors of U.S. teens who believe their risk for early death is high.

**SETTING:** More than 1 in 7 U.S. teens believe they will be killed by age 21 or not live to age 35. To characterize these youths and determine whether their anticipation of early death is a powerful identifier of health-jeopardizing behaviors dangerous to themselves and others, we examined data from the National Longitudinal Study of Adolescent Health.

**METHOD:** Initial data yielded a nationally representative sample of ~20,000 7th-12th graders (17% boys and 14% girls). Logistic regression was used to identify the life circumstances and risky behaviors of these young persons.

**RESULTS:** One-third of American Indians, >25% of blacks and Hispanics, one in six Asians, and 11% of whites perceived themselves at risk of early death. These teens were less likely to feel safe in their neighborhood and at school, at least twice as likely to be poor, to have repeated a grade, to have learning problems, to carry weapons, to perpetrate violence, and to report suicide attempts. They described more substance use, delinquency, and poor physical and emotional health; feeling less connected to school, family, and other adults; and experiencing less parental presence and involvement.

**CONCLUSIONS:** Perceived risk of untimely death among adolescents is a powerful marker for high-risk status, including personal history, social context, and involvement in health-jeopardizing behaviors.

**LEARNING OBJECTIVE:** Participants will understand the social milieu, health, and risk behaviors of U.S. adolescents who perceive a high likelihood of early death.

## Relationship Between Parent's and Teenagers' Physical Activity Behavior in a Sample of Inner-City Families

R. Oman, S.K. Vesely, L. Marshall

**OBJECTIVE:** Little is known about the relationship between levels of physical activity of parents and those of their teenaged children, and even less is known about this possible relationship in families residing in an inner-city environment. This study investigated the relationship in a random sample of families living in inner-city neighborhoods.

**METHOD:** Parents (N= 1,347; mean age = 42.4 ±8.5; 81% female) and their teenagers (N= 1,347; mean age = 15.4 ±1.7; 52% female; 47% white, 23% black, 19% Hispanic, 10% Native American) were interviewed in person. Parents' and teenagers' rates of participation in mild-, moderate-, and vigorous-intensity physical activity (PA) and in overall leisure-time PA were each assessed using identical items from the Godin Leisure-Time Exercise Questionnaire.

**RESULTS:** Correlations between PA levels of parents and those of their teenagers were typically weak. For the complete sample, the strongest correlation was in the overall PA score ( $r = .10$ ,  $P < .001$ ). Same-sex parent/teenager correlations were also computed for each PA score. Mother and daughter (N= 588) results were similar to the complete sample results; the strongest correlation was in overall PA score ( $r = .09$ ,  $P < .05$ ). Father and son (N= 145) results differed somewhat. The strongest correlations for father and son PA were for vigorous activity ( $r = .15$ ,  $P < .08$ ), as well as for overall PA ( $r = .17$ ,  $P < .05$ ). The teenagers were also asked how often they participated in PA or sports with their parents: approximately 52% indicated "never," whereas approximately 15% indicated "usually" or "always."

**CONCLUSION:** These results suggest only a weak relationship between the PA levels of parents and those of their teenaged children.

**LEARNING OBJECTIVE:** Participants should be able to discuss the relationship, or lack of a relationship, between parent and teenager physical activity levels in a sample of inner-city families.

# Community Substance Abuse Prevention for Youth: Ethnographic Assessment

S.G. Lurie

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P43

**OBJECTIVE:** To assess community substance abuse prevention attitudes and programs for young people as an indicator of the impact of a national public health education program, using ethnographic design and qualitative research methods.

**SETTING:** Prevention of substance abuse by young people is a major goal of national public health education programs. The impact of such programs on local communities is effectively measured by longitudinal research that combines qualitative and quantitative methods.

**METHOD:** Ethnographic assessment of community prevention programs was conducted to complement household surveys in four regional suburban communities over a 10-month period during 1999–2000. This study of a suburban Texas community collated data on attitudes and programs derived from (1) open-ended interviews of city and school administrators, law enforcement officers, social workers, community leaders, program staff, and participants; (2) observation of community substance-abuse prevention events, the county prevention coalition, social service networks, and family health education classes; (3) city and county needs assessments; and (4) local media.

**RESULTS:** Respondents to interviews varied in their perceptions of drug abuse as a local or external problem in relation to drug traffic, methamphetamine manufacture, and lack of accessible local treatment for youth. Schools and youth organizations use local and state law enforcement to prevent youth crime, gang activity, violence, and drug or alcohol abuse, and to punish young people for disruptive or illegal behavior. Positive programs support development through education, career training and recreation for lower-income youth, peer and mentor relationships, intermural youth councils, and court-referred and voluntary parental training.

**CONCLUSION:** National health education programs had less impact on youth substance abuse than did regional social factors. The effect of diminished local and national resources on community prevention programs requires further evaluation.

**LEARNING OBJECTIVE:** Participants should be able to describe the use of ethnographic and qualitative research methods to assess community substance abuse prevention programs for young people and responses to national health education programs.

## Strategies for Developing Evidence-Based Exercise Recommendations for Older Adults

T. Prohaska, S.L. Hughes, G.M. Huber, C.D. Etkin

**OBJECTIVE:** To tailor evidence-based recommendations for exercise among people aged 60 and over to the needs of those using the recommendations, with specific recommendations for those with and without various chronic diseases.

**METHOD:** A systematic review of published literature on the outcomes of physical activity/exercise among older adults has resulted in a dataset of 2,300 papers. Annotation and preliminary analyses of over 300 studies involving both healthy older adults and those with cardiovascular disease or arthritis have been conducted. Sample evidence tables and recommendations have also been generated.

**RESULTS:** Evidence-based recommendations can be organized by type of exercise intervention, intervention outcomes, or chronic illness of the older adults. Each strategy has merit to different consumers. The strengths and weaknesses of various strategies for presenting evidence-based recommendations are discussed in terms of increasing the value and use of the recommendations for each group.

**CONCLUSIONS:** Evidence-based exercise recommendations for older adults are useful only if they are actually followed. Lessons learned on the importance of tailoring evidence-based recommendations to various potential consumers may be useful in other projects using evidence-based methodology.

**LEARNING OBJECTIVES:** (1) Participants will be able to describe three strategies for presenting evidence-based recommendations pertaining to older populations with chronic illness; and (2) participants should be able to describe how evidence-based exercise recommendations for older adults can best be presented to different user groups.

# Health-Related Quality of Life Among Community-Dwelling Persons with Spinal Cord Injury

L. Steele

**OBJECTIVE:** To assess factors associated with health-related quality of life (HRQOL) among community-dwelling persons with spinal cord injury (SCI).

**SETTING:** Persons with SCI who have completed rehabilitation and returned to the community face adjustment to numerous physical and psychosocial health problems. Four Healthy Days measures of HRQOL have been found acceptable for use with people with disabilities.

**METHODS:** A survey questionnaire was mailed to 306 current outpatients and former inpatients with SCI from five rehabilitation facilities in New York State. The questionnaire solicited information about respondents' medical history, demographics, and self-reported health status. The number of days with physical symptoms, mental symptoms, and activity limitation (AL) during the prior 30 days were used as measures of HRQOL.

**RESULTS:** Respondents reported means of 8.2 physical symptom days, 7.8 mental symptom days, and 6.8 AL days. Self-reported depression was the strongest predictor of both physical and mental symptom days, as well as being associated with AL days. Persistent pain was also associated with physical symptom days, while persistent fatigue, being female, and having low income were related to mental symptom days. These associations were evident regardless of level of SCI and degree of cord involvement.

**CONCLUSION:** Although physical limitations may be the most apparent challenges to community-dwelling persons with SCI, the influence of psychosocial factors on HRQOL of this group was supported by these survey results. The association of depression with HRQOL was consistent across measures and warrants further exploration.

**LEARNING OBJECTIVE:** Participants should be able to describe the factors associated with HRQOL among community-dwelling persons with SCI.

## Promoting School Health Programs via Mobile Health Units

D. Allensworth, K. Christi

**PURPOSE:** To describe a unique initiative that utilizes a variety of strategies to involve school staff, students, and family members in promoting health-enhancing activities with the goal of improving short- and long-term health objectives and improving academic achievement.

**SETTING:** Working with local school systems, public health agencies and other, nongovernmental agencies, Kids Health has formed partnerships that link policy-makers and practitioners to improve school health programming.

**INTERVENTIONS:** Kids Health, which has formed a partnership with Emory University, Children's Hospital, and the Centers for Disease Control and Prevention, has developed a variety of strategies that will be used at the local school level: supplemental health classes to be provided in mobile vans, health-enhancing schoolwide activities, health-promoting activities for staff, parental newsletters, summer staff development opportunities for school teams, and technical assistance for the establishment of School Health Councils.

**OUTCOMES:** Kids Health has engaged metro Atlanta school districts and independent schools to participate in this initiative during the next school year. All schools have provided a representative to the curricula committee and have committed to assist with the organization of a school health council.

**CONCLUSIONS:** This initiative that unites policymakers and practitioners has the potential to increase school-level programming in health education, physical education, parent and community involvement, and staff work site health promotion.

**LEARNING OBJECTIVES:** The participant will be able to (1) describe elements of effective school health promotion programs and (2) discuss the link between health and education.

# Prenatal Substance Use and Birth Outcomes: What Does Missing Documentation Tell Us?

W. Hellerstedt

**OBJECTIVE:** To examine maternal substance use by maternal characteristics and birth outcomes and examine the nature of missing substance-use data on birth certificates.

**SETTING:** Because birth certificate data are used to quantify the risks that maternal use of tobacco, alcohol, and other drugs pose for poor birth outcomes, they can influence policy and program decisions. The characteristics of certificates with missing substance-use data and how the use of imputed values can change risk estimates are not clear.

**METHOD:** The independent and interactive associations of maternal prenatal alcohol, tobacco, and drug use with four poor birth outcomes (low birth weight, preterm, small size for gestation, and infant death) were examined for 36,235 births to adolescents and 403,496 births to adults in Minnesota from 1990 to 1996. Records with missing data were coded and included as missing (or with imputed values) in various multivariate logistic regression models. Attributable risks were calculated.

**RESULTS:** Missing maternal substance-use data was most common among mothers who were adolescent, nonwhite, poorly educated, or unmarried. For infants of both adults and adolescents, the odds ratios for most of the poor birth outcomes were as large for those with missing data as for those with data indicating maternal substance use. The attributable risks of poor outcomes associated with maternal substance use changed when missing data were not included in analyses and when different imputation assumptions were made.

**CONCLUSION:** Missing substance-use data on birth records is a marker of poor birth outcomes and of infant death.

**LEARNING OBJECTIVE:** Attributable risk estimation is sensitive to sample exclusions and type of imputation model.

## Effect of Topical Herbal Treatment on Osteoarthritis: A Randomized Controlled Clinical Trial

B. Jacobson, H. Gemmell, B. Hayes

**OBJECTIVE:** To compare subjective degrees of hand or knee pain and stiffness between persons using an experimental, herbal-based, topical osteoarthritis (OA) ointment (ARP™) and persons using a placebo ointment.

**SETTING:** Patients diagnosed with OA.

**METHOD:** Subjects (N = 30) were assigned to an experimental (EX) or placebo (PL) group. For 42 consecutive days, subjects applied the experimental or placebo ointment to the affected site and recorded their level of pain and stiffness on visual analogue scales. Data were separated into two categories (days 1–21 vs. days 22–42) and analyzed for differences between and within groups.

**RESULTS:** The mean age of the subjects was 60.4 years (SD = 11.6), their mean height was 65.54 inches (SD = 3.2), and their mean weight was 172.5 lbs. (SD = 66.7). The EX group reported a significantly lower level of both pain ( $P = .003$ ) and stiffness ( $P = .0008$ ) during the second 21 days. Analysis of gain scores between the EX and PL groups showed that the EX group had significantly less pain ( $P = .026$ ) and stiffness ( $P = .042$ ).

**CONCLUSION:** Effective OA pain/stiffness management could be achieved through methods other than potentially harmful drug regimens. Further research on herbal treatment is needed.

**LEARNING OBJECTIVE:** Participants should be able to describe the effects of herbal-based, topical ointment on patients with OA.

## Take the Pledge II — Move More, Eat Better: A Community Nutrition Intervention

M. Egan

**OBJECTIVE:** To increase fruit and vegetable consumption and physical activity among participants to help lower their risk for cancer and heart disease.

**SETTING:** Participants were recruited from Pontiac and Northern Oakland County, Michigan, which have disproportionately large minority and low-income populations.

**METHOD:** A Healthy Habits survey assessing fruit and vegetable consumption and physical activity was administered before and after the intervention. Participants pledged to eat 5 servings of fruits and vegetables a day and to move 30 minutes a day, 5 days a week. The intervention consisted of a series of four mailed newsletters on increasing fruit and vegetable consumption and physical activity, community-based walking clubs, a 6-week Eating Right class, and a 2-week cooking class. The newsletters addressed barriers identified through focus groups, including time, money, and acceptance by children.

**RESULT:** A total of 41% of the participants increased their consumption of fruits, and 28% increased their consumption of vegetables. The percentage of participants who were physically active 5–7 days per week increased from 24% to 36.2%. The percentage who had 11–41 minutes of physical activity a day increased 20% (56.2% to 76.2%).

**CONCLUSION:** Mailed newsletters and community-based walking clubs are effective in increasing fruit and vegetable consumption and physical activity levels in a low-income, minority population. Based on these findings and feedback from participants, a second phase of the program has evolved in which newsletters are now tailored to participants' beliefs about fruits and vegetables and physical activity and the barriers to meeting diet and physical activity recommendations.

**LEARNING OBJECTIVES:** Participants should be able to describe two population-based community nutrition interventions.

## Are Six-Month Outcomes Relevant in Evaluations of Chronically Ill Seniors?

E. Phelan, B. Williams, E. Wagner, J. LoGerfo

**OBJECTIVE:** To compare reductions in risk factors for functional decline among chronically ill community-dwelling seniors in a disability prevention program after 6 months and 12 months.

**SETTING:** Senior centers in western Washington.

**METHODS:** We analyzed data from 234 Health Enhancement Program enrollees at senior centers in western Washington for whom baseline, 6-, and 12-month data were available. We examined risk factors for functional decline, including depressive symptoms, physical inactivity, and social isolation, comparing baseline levels with levels at 6- and 12-month follow-ups.

**RESULTS:** Participants were 71% female, had an average age of 74 years, and had 3 chronic conditions. For each risk factor, improvement from baseline was evident at 6 months and did not change substantially from 6 to 12 months for the group overall. The subgroup whose average level of physical activity had not increased by 6 months also showed no increase at 12 months. In this subgroup, baseline depressive symptoms were worse (Geriatric Depression Scale 4.8 vs. 3.1,  $P = 0.04$ ). No other characteristics (sex, chronic disease burden, or social isolation) distinguished this subgroup.

**CONCLUSIONS:** Improvements in disability risk factors are achieved at 6 months for the majority of seniors. For the subgroup that had not improved by 6 months, addressing depression may also be important to achieve improvement in physical activity.

**LEARNING OBJECTIVE:** Participants should have an increased understanding of the use of 6-month assessments of outcomes in chronically ill seniors.

## Effectiveness of Lay Educators in Colorectal Cancer Screening Recruitment

R. Tyroch, S. Prasad, M.A. Samman, L. Kim, L. Aragon, L.S. Barrett

**PURPOSE OF THE PROGRAM:** To provide colorectal cancer education and screening to an underserved, Spanish-speaking U.S.–Mexico border population.

**SETTING:** In a collaborative effort, the Texas Cancer Council, local philanthropic foundations, Texas Tech University Health Sciences Center, and El Paso County Hospital District developed a colorectal cancer screening network.

**INTERVENTIONS:** Lay educators personally approached 1,455 patients awaiting their physician visit at university and county clinics between May 1999 and June 2001. Patients filled out risk factor questionnaires, which were reviewed by the project physician to determine the screening modality to be utilized. Lay educators and the nurse guided participants in overcoming barriers to screening (including lack of transportation and funding, preprocedure diabetic medication management, and bowel preparation). Additionally, 8,665 individuals at seven Hispanic cultural events were provided oral and written information about how, why, and where to obtain screening from the project.

**OUTCOMES:** Of the group approached in the clinic, 333 agreed to colorectal cancer screening by means of fecal occult blood testing and flexible sigmoidoscopy (21%). Only one patient recruited from the cultural events participated in the program (0.01%).

**CONCLUSIONS:** Intense efforts by lay educators to recruit clinic patients into colorectal cancer screening led to 21% compliance in the target population. Mass public screening efforts in this population did not lead to recruitment into screening.

**LEARNING OBJECTIVES:** Participants should be able to describe the novel approach utilized in the El Paso collaborative colorectal screening network, which involves Spanish-speaking lay educators in a clinic setting.

## Using CMS Data to Examine Diabetes Mellitus in Ohio Nursing Homes

R. Duffy, B. Mattson, M. Zack, K. Shaheen, K. Kimmet, K. Haas, D. Arms, B. Maust

**OBJECTIVE:** To use the Centers for Medicare and Medicaid Services' (CMS) Minimum Data Set (MDS) to compare rates of various chronic diseases among Ohio nursing home patients (NHPs) with diabetes with rates among NHPs without diabetes.

**SETTING:** In 1999, approximately 500,000 Ohio residents had diabetes mellitus (prevalence rate = 6.1%). Over 75,000 patients in 1,100 Ohio nursing homes receive care daily for various chronic diseases including diabetes. In 1990, the CMS developed the MDS to ensure good clinical practice based on comprehensive assessments for planning and delivering care to the nation's NHPs.

**METHODS:** Using 1999 Ohio MDS assessments, we compared complications and preventive treatments in NHPs with diabetes (cases) with rates among NHPs without diabetes.

**RESULTS:** Of the 161,723 Ohio NHPs in 1999, a total of 40,430 (25%) had diabetes mellitus. Their ages ranged from 20 to 114 (median: 81) years; 68% were women; and 89% were white, 10% black, and 1% of other races. NHPs with diabetes were more likely than NHPs without diabetes to have heart or circulatory problems (odds ratio [OR] = 2.6) and foot infections despite preventive foot care (OR = 2.3). NHPs with diabetes who were <60 years were more likely than comparable NHPs without diabetes to have glaucoma (OR = 2.4).

**CONCLUSION:** Compared with other Ohio NHPs, Ohio NHPs with diabetes have more complications and require more specialized care.

**LEARNING OBJECTIVE:** The MDS is useful for longitudinal study of complications and treatment among NHPs with diabetic and other chronic diseases.

# Closing the Preterm Delivery Gap: Strategies from Advancing Research to Informing Policy

J. Hood, N. Dillon-Brown, M. Broussard, M. Boisseau

**PURPOSE OF PROJECT:** To translate research findings into intervention strategies to reduce the racial and ethnic disparities in rates of preterm delivery.

**SETTING:** Since 1990, the Division of Reproductive Health (DRH), National Center for Chronic Disease Prevention and Public Health Promotion, Centers for Disease Control and Prevention, has been involved in research targeted toward understanding the causes and risks of preterm delivery. The intent of this qualitative, community-partnered research was to investigate the social context of pregnancy to better understand the racial and ethnic disparities in pregnancy outcomes and to help define more effective strategies to prevent adverse pregnancy outcomes. Five studies were conducted in four urban cities: Harlem, Los Angeles, Atlanta, and Chicago.

**INTERVENTIONS:** In 1998, DRH began collaborating with the W.F. Kellogg Foundation to support the development of intervention strategies based on the research findings. The contextual knowledge has been synthesized with that of emerging etiologic evidence to define feasible intervention strategies for closing the disparity in preterm delivery rates. As a result of this multistage process, six recommendations and potential strategies have been developed in the following key areas: augmenting health education for women, improving community participation, enhancing provider education, implementing a media campaign, and informing policy.

**OUTCOMES:** Many of the original project goals have been accomplished. For example, the Los Angeles project has created materials to better educate women and their families about the issues of preterm delivery and developed the framework for media messages included in the communications strategy. In addition, the project has been able to maintain community collaborations and implement a new initiative to inform state policy.

**CONCLUSIONS:** Eliminating racial and ethnic disparities in preterm delivery rates requires a complex, multidimensional, long-term process. To adequately address these disparities interventions should focus simultaneously on multiple key areas. Collaborations among health care providers, researchers, funders, advocates, and communities are crucial in the quest to improve pregnancy outcomes for all women.

**LEARNING OBJECTIVES:** Participants should better understand how the six strategies of this project work together toward eliminating racial and ethnic disparities in preterm delivery rates.

## Growing Up with Parental Alcohol Abuse: Exposure to Childhood Abuse, Neglect, and Household Dysfunction

S. Dube, R. Anda, V. Felitti, J. Croft, V. Edwards, W. Giles

**OBJECTIVE:** To examine the relationship between parental alcohol abuse (by mother, father, or both parents) and multiple forms of childhood abuse, neglect, and other household dysfunction, known as adverse childhood experiences (ACEs). ACEs have been shown to be highly associated with adult health risk behaviors and outcomes such as smoking, alcohol abuse, illicit drug use, STDs, and unwanted pregnancies.

**METHOD:** A cohort of 8,629 adult members of health maintenance organizations were surveyed about their history of various types of ACEs and about whether their parents abused alcohol.

**RESULTS:** Compared with persons who grew up with no parental alcohol abuse, those who did were approximately 2 to 13 times more likely to have experienced various ACEs ( $P < 0.05$ ). For example, the likelihood of having a battered mother was almost 13-fold higher for men who grew up with two parents who abused alcohol (odd ratio [OR], 12.7; 95% confidence interval [CI] 8.4-19.1). The mean numbers of ACEs for persons with no parental alcohol abuse, father only abuse, mother only abuse, or abuse by both parents were 1.4, 2.6, 3.2, and 3.8, respectively ( $P < .001$ ).

**CONCLUSION:** Exposure to parental alcohol abuse is highly associated with ACEs. A cross-disciplinary approach involving early recognition, treatment, and prevention of both adult alcohol abuse and adverse childhood experiences may help to reduce the negative sequelae of ACEs.

**LEARNING OBJECTIVE:** Participants should gain an understanding that exposure to parental alcohol abuse is associated with many adverse childhood exposures and that these childhood exposures are strong risk factors for many of the leading causes of death among adults.

# Keeping the Focus on Public Health: The Political Struggles of a Tobacco Task Force

*J. Shillis, B. Hall, G. Sneden, N. Gottlieb*

8

TRACK

P55

**OBJECTIVE:** This case study examines the development of tobacco prevention policy recommendations by a nonlegislative task force and describes subsequent legislative decisions.

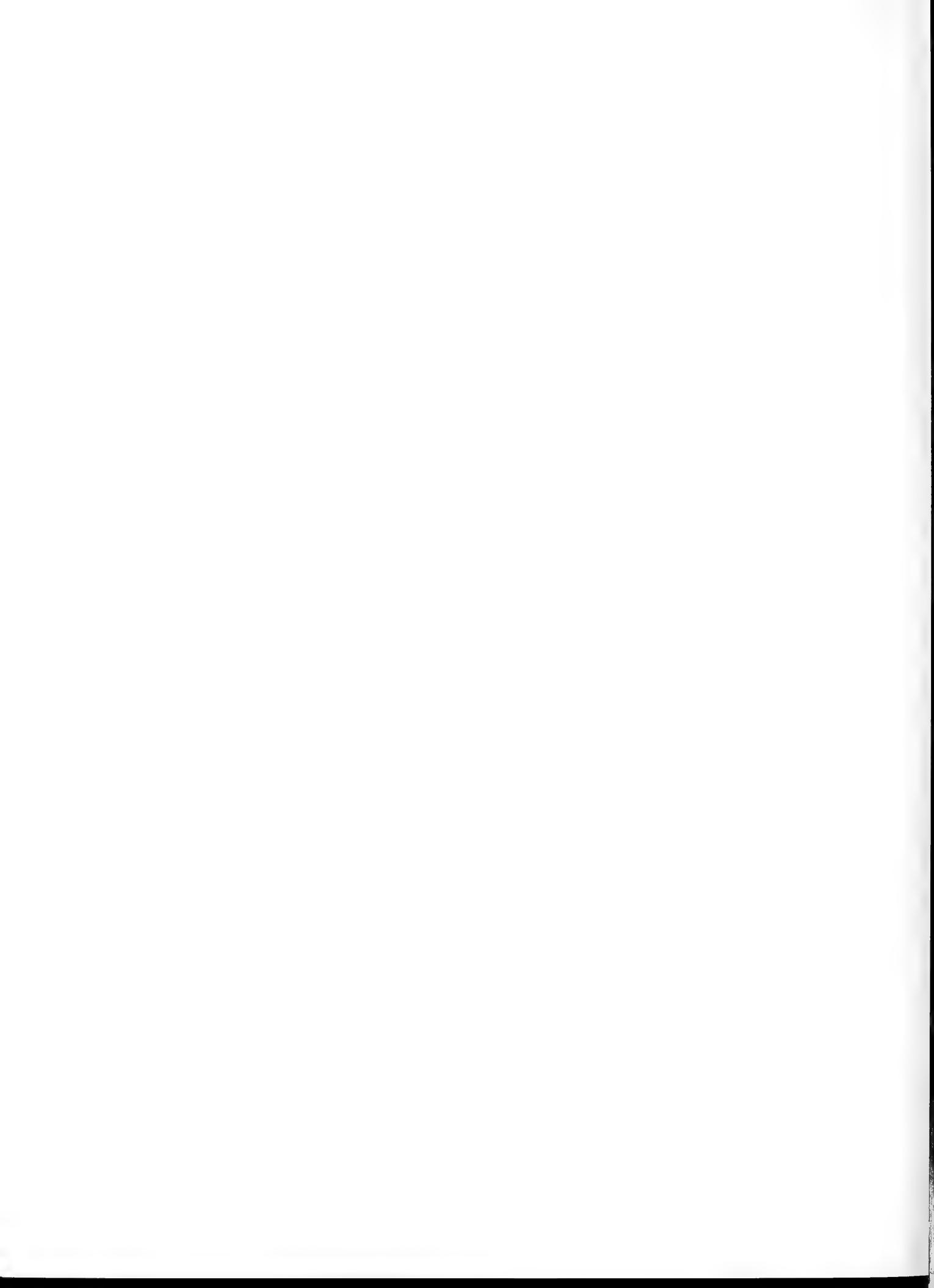
**SETTING:** Formed at the request of the legislature to create a statewide plan for tobacco prevention, the Texas Inter-Agency Tobacco Task Force included representatives from state agencies, medical associations, voluntary health organizations, and community-based organizations.

**METHOD:** Eighteen task force members and two Texas Department of Health officials were interviewed. Interpretive interactionism, a sociological research method, guided the investigation. The steps of the method-bracketing, construction, and contextualization—are designed to uncover underlying themes in the participants' experience, introduce rigor in analysis and interpretation, reduce perceptual bias, and maintain data integrity.

**RESULTS:** The Texas task force took advantage of ambiguous parameters, crafting a comprehensive plan to reduce tobacco use and breaking out of the common public health paradigm of allowing budget considerations to drive program design. However, the task force's internal victories could not sustain a policy success in the legislature.

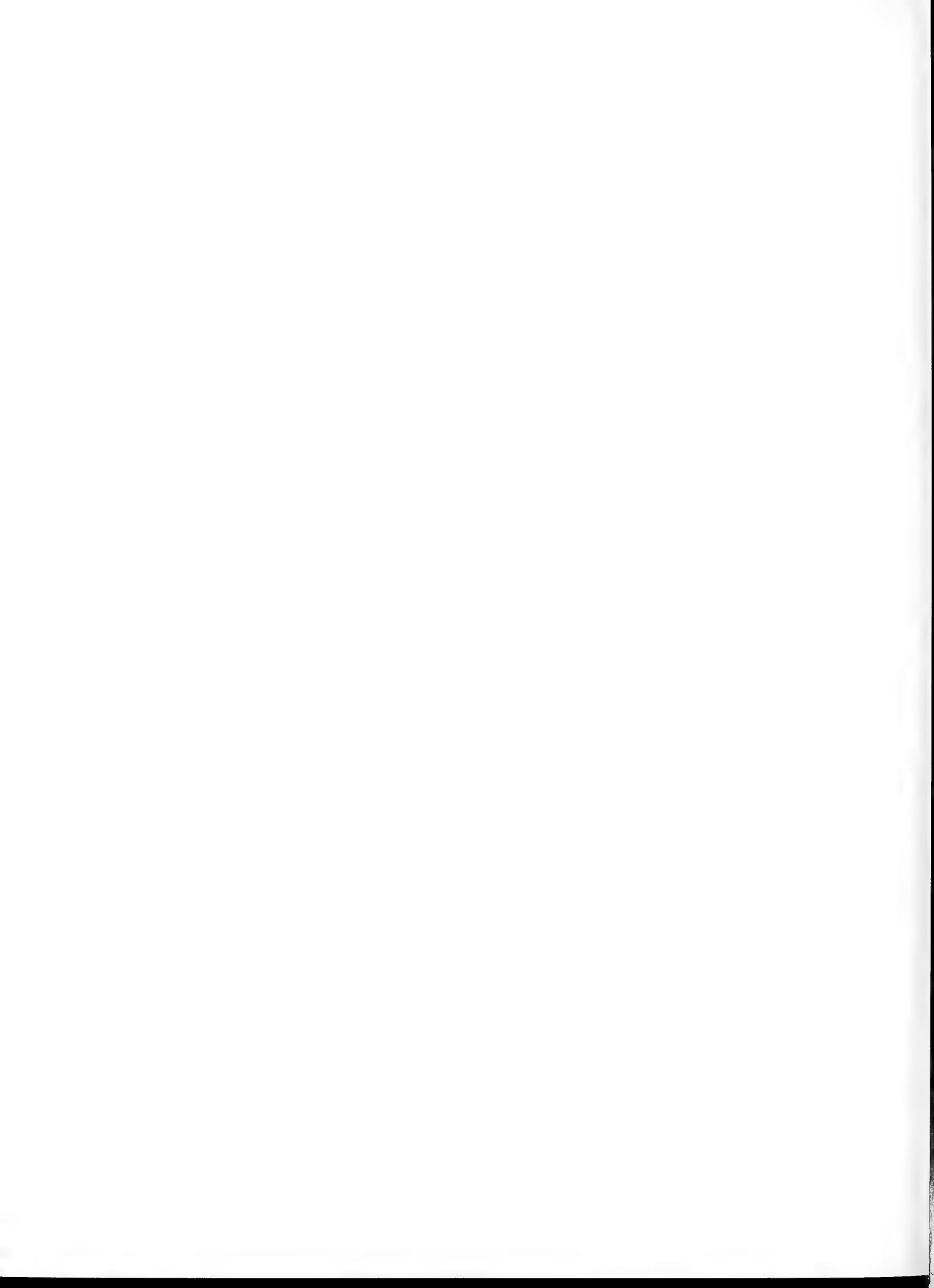
**CONCLUSION:** This study focuses on the convergence of politics and public health, revealing complex issues likely to be confronted by public health officials and policy-makers in any state developing tobacco prevention policies.

**LEARNING OBJECTIVE:** Participants should be able to identify key issues in the development of tobacco prevention policy and use the lessons learned in Texas to reflect on and improve their own experiences with interagency work-groups within political contexts.



# Roundtable Presentations

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# Creation of a Wellness Program for Fire and Police Departments

R. Mitchell

2

TRACK

R1

**PURPOSE OF THE PROGRAM:** To provide a comprehensive, accessible, and confidential wellness program for fire and police department personnel. The focus is on programs that advocate wellness and introduce strategies to decrease the incidence of chronic disease.

**SETTING:** Fire and police departments in the 15 towns on Cape Cod. The program was developed by Barnstable County with information from the Massachusetts Department of Public Health (MDPH). Key personnel include registered nurses, dietitians, tobacco control specialists, fitness trainers, and doctors.

**INTERVENTIONS:** Research was based on the MDPH study of requirements for fire and police personnel hired after November 1996. These include a medical exam every 3 years and a physical agility test every 2 years. Information and collaboration with key experts led to the creation of a total wellness program. Modules offered to all department employees include health and fitness screening, nutrition, stress management, fitness one-on-one, back safety, and an immunization program.

**OUTCOMES:** The Barnstable County Wellness Program was developed and implemented in November 1999. Forty-four Wellness Fairs have been held, and 460 men and women were screened.

**CONCLUSIONS:** The county has been successful in making a wellness program available to all fire and police departments in Barnstable County.

**LEARNING OBJECTIVES:** Participants will be able to list components of a comprehensive wellness program for fire and police departments and describe strategies to prevent chronic disease among staff.

## Stress from Race-Based Discrimination at Work and Hypertension: The Metro Atlanta Heart Study

R. Din-Dzietham, S.K. Davis, J. Liu, R. Collins, C. Hutto,  
T. Jennings, W. Nembhard

**OBJECTIVE:** To examine the association of stress at work with blood pressure (BP) outcomes among African Americans following perceived race-based discrimination at work (RDW) from non-African Americans (nonAA) and African Americans (AA).

**SETTING:** Evidence linking stress at work and hypertension is increasing. However, few data exist for stress following RDW. The Metro Atlanta Heart Disease Study collected psychosocial and biometric data on a cross-sectional sample of 356 African American adults aged 21 or older residing in metropolitan Atlanta, Georgia during 1999–2001.

**METHOD:** Hypertension was defined as systolic blood pressure (BP)  $\geq 140$  or diastolic BP  $\geq 90$  mm Hg, or antihypertensive medication use. Stress was defined as RDW encounters [yes, no] and perceived stress from RDW [(1) none, (2) low, and (3) moderate/ high/very high]. Separate multiple regression models were fit for nonAA (n=197) and AA (n=95) source of discrimination.

**RESULTS:** Perceived stress at level 3 vs. level 1 tended to increase the relative odds of hypertension in the same magnitude for nonAA and AA source; adjusted odds ratio (OR) (95% CI): 1.5 (0.9, 2.5) and 1.4 (0.8, 2.6), respectively. The same level and source comparison was associated with increased systolic BP; adjusted mean (SE) SBP: 130 (1) vs. 124 (5) ( $P=0.22$ ) and 131 (2) vs. 113 (10) ( $P=0.08$ ) mm Hg, respectively. Perceived stress was not associated with diastolic BP, nor was RDW experience with either outcome.

**CONCLUSIONS:** Self-rated RDW stressfulness is a stronger correlate of BP outcomes than is an RDW event in this study sample. Moderate to very high-perceived stress at work tends to be associated with increased likelihood of hypertension. The associated SBP increase is larger and closer to statistical significance when discrimination is from AA.

**LEARNING OBJECTIVES:** Participants will understand the relationship between perceived stress associated with discrimination and hypertension.

# Healthcare Interpretation Certification/Training: Supporting Quality Health Care and Reducing Disparities

M. Michalczyk

4

TRACK

R3

**PURPOSE OF THE PROGRAM:** To examine how health care disparities are caused by language barriers and determine steps needed to ensure quality interpretation services.

**SETTING:** Language and cultural barriers create major obstacles to quality health care. These barriers are frequently responsible for the disparities seen in populations that require interpreting services. These disparities can be compounded by poor or inferior interpretation services. Over the last 10 years, the field of health care interpreting has flourished, and the issue of certification/training and quality health care interpreting has become an important topic of discussion.

**INTERVENTIONS:** To avoid language and cultural barriers for patients with limited English, national health care interpreter competency standards are needed. It is important for health care professionals to understand and advocate for certification/training policies locally and nationally.

**OUTCOMES:** The outcomes to health care interpreter certification/training are twofold: ensuring that the patient and the provider receive accurate transmission of essential information and providing a professional standard base that all health care professionals can understand, use, and rely upon.

**CONCLUSION:** It is important that the health care team recognizes, supports, and facilitates efforts to standardize and ensure the competency of the professional health care interpreter. In this presentation, the presenter will share the experience of several states that have passed laws for standardization and certification of health care interpreters.

**LEARNING OBJECTIVE:** Participants should be able to describe the importance of health care interpretation certification/training and describe which states presently require certification.

# Washington Breast and Cervical Health Program Data: Challenges in Changing the System

P. Joyner, C. Bowe, K. Querry

**PURPOSE OF THE PROGRAM:** To develop, implement, and monitor a decentralized, community-based systems approach that ensures statewide access to high-quality breast and cervical cancer screening and diagnostic services to eligible/enrolled women.

**SETTING:** The Washington Breast and Cervical Cancer Health Program (WBCHP) originated as a centralized system, based in Seattle and Olympia, to provide breast and cervical cancer screening for low-income women. Numerous problems resulted from the centralized model, most notably poor data quality and providers frustrated because of slow reimbursement.

**INTERVENTIONS:** A decentralized model of delivery partnering with statewide prime (regional) contractors was initiated in October 1999. A new comprehensive data management system was introduced at the same time the state moved data entry responsibilities to remote sites.

**OUTCOMES:** The most immediate outcome is more timely reimbursement and better communication with program providers, which has led to a renewal of practitioners' commitment to the program. Data quality and documentation of appropriate care paths are improving as regional program infrastructures evolve.

**CONCLUSIONS:** Because of the complexities of the Centers for Disease Control and Prevention's performance indicator requirements, correct data entry can be time-consuming with a steep learning curve. In addition, the new data system detected historical data errors embedded in the old system. Significant lessons have been learned regarding identifying data errors, recognizing inherent setbacks with implementing a database, training staff with a variety of expertise, using external staff (e.g., nurses) to conduct chart reviews, and working with a software vendor to customize software for the WBCHP. The new model of service delivery and new data management system provided the needed catalyst to identify and resolve data deficiencies.

**LEARNING OBJECTIVES:** Participants should be able to describe the importance of training staff for data collection activities, explain how to develop systems and forms for assessing quality of services, and discuss the inherent challenges in implementing database systems.

# Implementation of the School Health Index for Physical Activity and Healthy Eating in Rural Elementary Schools

N. O'Hara Tompkins, L. Zedosky, R. Monroe

2

TRACK

R5

**OBJECTIVE:** To describe the assessment and planning processes followed by rural elementary schools in West Virginia (WV) using the School Health Index for Physical Activity and Healthy Eating (SHI).

**METHODS:** A survey was used to gather information from school personnel ( $n=28$ ) about their use of the SHI. Telephone interviews were conducted with a sample ( $n=5$ ) of SHI users to gain more in-depth information on the types of intervention strategies school personnel identified in their action plans. Strategies were then categorized according to whether individuals (students) or organizational and interpersonal environments were the direct targets of the strategies.

**RESULTS:** Fifty-four percent of those exposed to the SHI used it. Respondents indicated that concern about the rising numbers of overweight children in their schools prompted their interest in the SHI. Interviewees reported that they identified a variety of targets for intervention including school policies, the school environment, and parents and families.

**CONCLUSIONS:** School personnel were enthusiastic about their experience with the SHI. All those interviewed reported plans to implement strategies to address identified needs. Of particular interest was the emphasis on modifying students' environments rather than solely using strategies aimed at modifying individual characteristics, e.g., students' knowledge, attitudes, and skills. It appears that the SHI is a promising tool to help shift the emphasis from an individual (student) approach to a more ecological approach.

**LEARNING OBJECTIVE:** Participants will be able to describe the SHI and a framework for assessing the types of intervention strategies that emerge from use of the SHI.



## REACH for Wellness: A Community-Oriented Approach to Eliminating Racial Disparities

A. Troutman, L. Johnson

**OBJECTIVE:** Decrease cardiovascular disease in the Atlanta Empowerment Zone.

**SETTING:** REACH for Wellness is a collaborative made up of community-based agencies, nonprofits, faith-based institutions, and health agencies who strategize, implement, and evaluate community interventions to decrease cardiovascular disease.

**METHODS:** Training of (1) churches and barber shops to do blood pressure monitoring and exercise on site, (2) male and female empowerment groups to increase the capacity of residents, (3) nutrition classes to teach residents about nutrition and how to cook heart-healthy meals (meat and nonmeat).

**OUTCOMES:** Residents of the empowerment zone will see a decrease in cardiovascular disease. Residents will engage in some form of physical activity and eat a healthier diet.

**CONCLUSION:** This presentation will address the creation and inception of a community-based intervention strategy that focuses on developing a broad-based community coalition, population-based data collection, and the building of a unique community action plan designed to bring about health equity in the poorest section of Atlanta, Georgia, the Atlanta Empowerment Zone. This strategy combines a traditional public health approach and the medical model, along with the principle of the community health worker that is evolving in the developing world. A primary thesis is the notion that health disparities will never disappear as long as social and economic disparities continue to exist and widen.

**LEARNING OBJECTIVE:** Discuss the role of economic and social inequalities in health disparities and how to develop community capacity-building around health disparities.

# A Case Study of Two Minnesota Community-Based Tobacco Prevention Programs

R. Britt, R.M. Jones

2

TRACK

R7

**PURPOSE OF THE PROGRAM:** To provide secondhand smoke resources to local and state tobacco control groups and to influence recreational groups to offer smoke-free activities for youth.

**SETTING:** The Association for Nonsmokers-Minnesota was funded by the Minnesota Department of Health to provide two statewide programs addressing role modeling and policy change. The Secondhand Smoke Resource Center (SSRC) and Tobacco Free Youth Recreation (TFYR) are collaborating with local and statewide agencies, grantees, and community groups.

**INTERVENTIONS:** SSRC maintains an extensive catalogued library of secondhand smoke resource materials as well as offers consultation with local and statewide groups regarding policy changes within institutions and communities. TFYR provides model tobacco-free recreational policies to local organizations, co-hosts events with local and state organizations to promote healthy lifestyles, and offers promotional materials to recreational staff for use in sports and other activities.

**OUTCOMES:** Short-term outcomes include conception, development, and implementation of programs. Other outcomes include significant contacts with local and state groups, implementation of policy changes in communities and organizations, and use of the resource center and recreational materials by external groups.

**CONCLUSIONS:** SSRC and TFYR will continue to provide necessary information and consultation to local and state groups engaged in tobacco control. Both programs offer innovative approaches for large segments of the population potentially influenced by role models and community regulation.

**LEARNING OBJECTIVES:** Participants should be able to describe two new programs designed to influence secondhand smoke knowledge and tobacco-free activities and to consider integration of program components into current tobacco control efforts.

## Health Insurance Claims Data Study: A Reality Check

N. Neff, M. Friedrichs

**OBJECTIVE:** To determine if members of a work site health promotion program have higher or lower health care costs as compared with nonmembers and if certain behaviors are more or less costly.

**SETTING:** National studies indicate employees participating in work site health promotion programs realize health and pharmacy cost savings over time. However, a study of this type has not been conducted with Utah state employees.

**METHOD:** A “Health Habits Survey” was mailed to 19,000 state employees insured by Public Employees Health Program (the state-funded insurance plan). A total of 8,695 useable responses were received (47.5% return rate). Health and pharmacy expense records were generated for a 2-year period for the cohort. Comparisons were made between members and nonmembers and on several risk factors.

**RESULTS:** Fifty-six percent of respondents were not members of the program; age distribution was similar for the total population and respondents; program members were slightly more expensive in average overall annual health care and pharmacy costs than nonmembers; and health care and pharmacy costs were lower for certain behaviors and risk factors (i.e., alcohol use) and higher for others (i.e., back pain, depression, stress, diabetes, obesity).

**CONCLUSIONS:** Short-term health insurance costs for most risk and behavioral factors vary little; overall health care and pharmacy claims vary little between members and nonmembers of the employee wellness program. A longitudinal study is necessary to determine if program membership impacts costs.

**LEARNING OBJECTIVES:** Participants will be able to describe the process of conducting an employee health insurance claims data study and the implications of results obtained.

# Linking Health, Education, and Industry: South Carolina's Collaborative Effort

*T. Hill, B. Henson, K. Elam*

1

TRACK

R9

**OBJECTIVE:** A collaborative framework linking health, education, and industry to promote nutrition education.

**SETTING:** South Carolina Department of Health and Environmental Control, a public school, and the community of Spartanburg, South Carolina.

**INTERVENTION:** Recognizing the need for better community nutrition education, public health and public school staff collaborated to promote the 5 A Day for Better Health Program. A school festival that engaged the community was developed around the 5 A Day Program. Bi-Lo, a retail grocery partner of 5 A Day headquartered in South Carolina, was recruited to support school and community nutrition programs with supermarket tours and produce distribution.

**OUTCOMES:** Over 250 students, family members, teachers, and community members attended the festival showcasing what students learned about the importance of nutrition in health promotion and disease prevention. The school has received funding from Bi-Lo for purchasing fruits and vegetables to support future nutrition programs. Collaboration efforts have strengthened between public health and education systems in the state, prompting the development of an integrated nutrition curriculum. This curriculum will be pilot tested in Spartanburg during the upcoming school year with plans to promote the curriculum statewide.

**CONCLUSION:** This collaborative relationship between health, education, and industry has helped to build awareness for nutrition education, build family involvement in schools, and build infrastructure in the community.

**LEARNING OBJECTIVE:** To build and strengthen collaborations to create opportunities for promoting a healthier South Carolina.

## Measuring Policy and Environmental Indicators for Cardiovascular Health

*D. Pluto, D. Shepard, L. Smith, D. Matson Koffman*

**OBJECTIVE:** To explore issues in measuring policy and environmental indicators related to physical activity, nutrition, and tobacco use.

**SETTING:** Funded by CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), the South Carolina (SC) State Department of Health and University of South Carolina Prevention Research Center identified data sources for a selected list of policy and environmental indicators in SC communities, schools, work sites, and health plans.

**METHODS:** NCCDPHP and its public health partners developed a pilot list of indicators for cardiovascular health. To determine if measurements for the indicators were available, accessible, and relevant, the research team contacted various organizations to identify possible data sources. The team then contacted the responsible agencies for specific information about the source (e.g., methods, frequency, and cost). If data sources were not found, the team recommended possible collection methods.

**RESULTS:** Data sources were found for about a third of the 31 indicators. Most were for school indicators. Overall, data sources are more available for tobacco policies than for policies related to physical activity or nutrition.

**CONCLUSIONS:** Few data sources exist for the selected policy and environmental indicators. For most indicators, individual counties, municipalities, school districts, or work sites must be surveyed. The complexity of the health plan market will require creative methods to measure indicators in that arena.

**LEARNING OBJECTIVES:** Participants should be able to use lessons from this project to identify relevant data sources for policy and environmental indicators related to physical activity, nutrition, and tobacco use in their own states.

# Unique Methods to Educate Decision Makers and the Public—Just a Little “Off Broadway”

J. DeNovio, K. Marschilok, M. Spence

**PURPOSE OF THE PROJECT:** To provide a unique forum to educate decision makers about children with diabetes and the problems they face interacting with family, friends, and classmates and to promote increased access to self-management education and research.

**SETTING:** A mere 150 miles north of Broadway, a troupe of actors performed a play called “IALAC —A Day in the Life of a Child with Diabetes” at two locations in the capital city of Albany. The play starred members of the Sugar Free Gang, a local support group for children with diabetes, and is a project of the Capital Region Coalition for Children with Diabetes. The coalition is funded by the New York State Governor’s Initiative for Children with Diabetes.

**INTERVENTIONS:** The coalition provides diabetes education and support for schools and families of children with diabetes. Working with the local Association of Diabetes Educators, the Juvenile Diabetes Research Foundation, and the American Diabetes Association, the coalition employs numerous strategies to enhance self-management practices of school-aged children with diabetes.

**OUTCOMES:** The coalition has been involved in several creative efforts, including an Advocacy Day, a summer day camp (Kids Kamp), and the Sugar Free Gang.

**CONCLUSIONS:** Educating decision makers about the work being accomplished by this group and the needs faced by children with diabetes could lead to funding of similar projects statewide.

**LEARNING OBJECTIVES:** Participants will learn unique strategies to educate decision makers and foster creative partnering between schools, communities, and advocacy organizations.

## New York's Ongoing Commitment to Improving Colorectal Cancer Education

R. Brady, V. Wagner, L. Couey, E. Bradt, T. Justin, T. Signorelli

**PURPOSE OF THE PROGRAM:** To evaluate the educational messages of the Colorectal Cancer Screening and Prostate Cancer Education Initiative (CPI).

**SETTING:** Regional meetings were held to observe health educators present the colorectal cancer screening educational messages they are disseminating in the field. Health educators demonstrated their methods for educating uninsured and underserved New Yorkers via role-playing and simulated group educational encounters.

**INTERVENTIONS:** A committee of educational, fiscal, and data staff was convened to evaluate the messages presented. The committee concluded that the messages were inadequate and inconsistent. Specifically, the committee cited too much sidetracking, inclusion of unnecessary information, and cost to client as areas of concern. To correct these problems, the committee recommended development of an educational tool for distribution.

**OUTCOMES:** Using the Centers for Disease Control and Prevention's "A Call to Action: Prevention and Early Detection of Colorectal Cancer," New York State developed a 5-minute educational tool entitled "Colorectal Cancer: Preventable, Treatable, Beatable." This tool is specifically designed to be sensitive to client concerns (i.e., literacy level, time constraints, and fears related to colorectal cancer).

**CONCLUSIONS:** In a statewide program such as CPI, state staff should monitor messages communicated at the local level to ensure that clients are receiving reliable information.

**LEARNING OBJECTIVES:** Participants should better understand the importance of (1) evaluating educational messages that are being disseminated in the field and (2) delivering a consistent message.

# Socioecologic Stressors in African Americans with and Without Hypertension: The Metro Atlanta Heart Disease Study

*S. Davis, Y. Liu, W. Nembhard, C. Hutto-Woods, T. Jennings,  
R. Collins*

**OBJECTIVE:** To estimate the association of socioecologic stressors on hypertension prevalence in a sample of African American adults.

**SETTINGS:** African Americans have disproportionately higher rates of hypertension possibly due to greater exposure to psychological stress stemming from socioecologic factors. Few studies have examined the association of such stressors with hypertension prevalence in African Americans. The Metro Atlanta Heart Disease Study (MAHDS) was a cross-sectional study designed, in part, to elucidate such associations.

**METHOD:** Self-reported and physiologic data were collected on a sample of 356 normotensive ( $n = 182$ ) and hypertensive ( $n = 174$ ) African American adults older than 21 years residing in metropolitan Atlanta, Georgia, from 1999 to 2001. Separate logistic regressions estimated the association of level of general daily stress and worry, level of specific daily stress and worry due to skin color and race, and urban versus rural residential location on hypertensive and normotensive participants, along with pertinent confounding covariates. Odds ratios (OR) and 95% confidence intervals (CI) are reported.

**RESULTS:** Participants who reported higher levels of general daily stress and worry and those residing in an urban location were more likely to be hypertensive (OR/95% CI = 1.4/1.01-2.04 { $P = .03$ } and 1.9/1.13-3.18 { $P < .01$ }, respectively).

**CONCLUSION:** Overall daily stress and worry, in general, and residing in an urban location may be more important socioecologic stressors associated with hypertension prevalence in African Americans than stress and worry due to skin color and race.

**LEARNING OBJECTIVE:** Participants should be able to identify significant stressors that may influence higher rates of hypertension in African Americans.

## Exploring the Social Capital Construct in a Community-Based Survey

L. Crane, J.A. Marshall, E. Belansky, B. Sawyer

**OBJECTIVE:** Examine the utility and meaningfulness of a 14-item social capital index.

**SETTING:** There is increasing interest in applying the concept of social capital to understand health disparities; however, many methodological and definitional challenges remain (Kawachi & Berkman, 2000). The purpose of this study is to increase our understanding of the social capital construct.

**METHOD:** A random-digit-dial telephone survey was conducted in a low-income, rural, Hispanic/non-Hispanic white community. In addition to questions on health behaviors and health outcomes, respondents ( $n=400$ ) were asked a 14-item scale to assess social capital. Items pertained to power structures, safety issues, regard for others, and organizational membership.

**RESULT:** Inspection of item-by-item frequencies suggest good face validity. Distributions of answers to positively worded items were opposite of the distributions to negatively worded items. For example, 78% of respondents agreed that people in their community can be trusted, while 20% of respondents felt afraid to be out alone after dark. Scale reliability analysis yielded a Cronbach alpha of .81 for the 14-item measure. While the social capital index was significantly related to believing the health of people in the community was better than people elsewhere in the state, it was not related to self-perceptions of health as has been previously observed (Kawachi, 1999).

**CONCLUSION:** The social capital index yielded high internal scale reliability and good face validity.

**LEARNING OBJECTIVE:** Participants will have an increased understanding of social capital, ways it can be assessed, and health-related factors associated with it.

# The New York Health Plan Association's Westchester New York Diabetes Initiative

*R. Fahr, A. Halpert*

1

R15

**PURPOSE OF THE PROGRAM:** To develop a collaborative effort aimed at reducing the negative health effects associated with diabetes.

**SETTING:** An alliance of health care providers, health insurance payers, and other health-related entities joined a groundbreaking initiative to tackle the growing incidence of diabetes from a health care insurer's viewpoint in New York State's Westchester County.

**INTERVENTIONS:** The New York Health Plan Association partnered managed care health plans, physician organizations, medical societies, government health agencies, diabetes advocacy groups, and the Island Peer Review Organization. A diabetes toolkit developed by the coalition was promoted to Westchester County physicians and their office staff by the health plan's provider representatives. Information on the project was also shared with patients via a beneficiary newsletter.

**OUTCOMES:** The toolkit, containing a laminated chart with guidelines for diabetes care, a flow sheet of minimum practice recommendations, and wall posters encouraging patients to have their feet checked, was well received by the providers and beneficiaries. The coalition is now planning to institute the project statewide. This group is also developing a guide to diabetes services for their community.

**CONCLUSIONS:** A well-organized coalition can successfully unite business competitors to produce and promote a provider education package that can be easily and effectively used by primary care providers.

**LEARNING OBJECTIVES:** Drawing in key community leaders and health care organizations to form a chronic disease prevention coalition can prove to be a successful means to promote basic disease prevention guidelines in primary care practices.



## Implementing a County-Level Quality Improvement Review of Cardiovascular Disease

L. Mulford, J. Hefelfinger

**PURPOSE OF THE PROGRAM:** To provide for the routine review of cardiovascular disease (CVD) in Florida counties by participating in the department's county health department (CHD) quality improvement (QI) process.

**SETTING:** This internal process of the department is a collaboration between headquarters and county health departments (CHDs). Community partners may be involved in program reviews.

**INTERVENTIONS:** Interventions of the process include creating team leadership; adding CVD health status indicators to the department's list; conducting CHD desk and onsite reviews; conducting cardiovascular disease county-level data reviews; producing QI bureau summary reports; and conducting evaluations to receive feedback from customers to improve the process.

**RESULTS:** Products and results of this process include county-level CVD data worksheets and analysis; CVD county-specific program reports; CVD program assessment tool; and sharing of CVD prevention best practices. This process has resulted in an increase of county health departments providing CVD programming.

**CONCLUSIONS:** This process provides a systematic way for programs to implement the core processes and functions of public health assessment, assurance, policy, and resources. The CVD Program CHD QI peer-review process provides the bureau and the department with a system that brings focus to evidence-based decision-making.

**LEARNING OBJECTIVES:** Participants should learn about implementing a quality improvement process with a focus on CVD programs. Tools will be shared and may be reproduced for use in other states.

# Building Chronic Disease Epidemiology Capacity in States

L. Birdwell, H. Roohi

2

TRACK

R17

**PURPOSE:** To increase chronic disease epidemiology capacity and strengthen training programs for chronic disease epidemiology in states.

**SETTING:** In collaboration with the Centers for Disease Control and Prevention, the Council of State and Territorial Epidemiologists (CSTE) has developed a strategic plan to increase chronic disease epidemiology capacity in state health departments.

**INTERVENTIONS:** To build epidemiology capacity at the state level, the following strategies have been identified: identify and coordinate relevant personnel mechanisms, identify and coordinate potential sources of funding, develop recommendations to help state health departments integrate chronic disease epidemiology functions and positions into their organizational structure, establish adequate infrastructure among lead organizations to sustain the effort, recruit qualified candidates, provide outreach to state health departments, establish a chronic disease epidemiology mentoring program for state health department staff, and monitor progress nationwide.

**OUTCOMES:** Efforts aim to provide mechanisms to staff each state health department with a state chronic disease epidemiologist. By January 2005, at least 10 states should have a model chronic disease epidemiology program. By January 2007, each state health department will contain a state chronic disease epidemiologist and at least one additional chronic disease epidemiologic staff member to support prevention and control. By January 2010, chronic disease epidemiology capacity will be coordinated between state and local health departments so that all health departments have access to chronic disease epidemiology support.

**LEARNING OBJECTIVES:** Participants will be familiar with current activities related to building chronic disease epidemiology capacity in states and with training activities such as the Behavioral Risk Factor Surveillance System training course and the national mentorship program.

## Global Tobacco Control and the Situation in China

B. Zheng, S. L. Yee, S. L. Mercer, T. Woollery,  
R. Nathan, B. Fishburn

**OBJECTIVE AND SETTING:** To determine the burden of tobacco-related disease and death in China, what tobacco control activities have been undertaken to date, and what remains to be accomplished if China is to reduce tobacco-related morbidity and mortality.

**METHODS:** A comprehensive review was undertaken that included examination of existing surveys, the published literature, and other documentation, as well as discussions with some key tobacco control professionals in China.

**RESULTS:** Worldwide deaths from smoking are expected to increase from 4 million in 2000 to 10 million in 2030; more than 2 million will occur in China alone. There are more than 300 million smokers in China, outnumbering smokers in all developed countries combined. Currently, 67% of Chinese men and 4% of Chinese women aged 15 and older smoke.

**CONSLUSION:** When China enters the World Trade Organization, international tobacco companies will undoubtedly target Chinese women as their single greatest marketing opportunity. Limited tobacco control efforts have been undertaken in China, and the country has limited funding and infrastructure for tobacco control. Nothing less than global collaboration will be able to deal with this epidemic.

**LEARNING OBJECTIVES:** Participants will be able to describe tobacco control activities in China.

# Community Partnerships in Public Health Research: Past, Present, and Future

*C. Beeker, G. Dino, E. Fee, M. Metzler, M. Northridge*

2

TRACK

R19

**PURPOSE OF THE PROGRAM:** To examine the role of community partnerships in public health research from three perspectives: the Urban Research Centers, the Prevention Research Centers, and the history of public health.

**SETTING:** Recent changes in research priorities at the Centers for Disease Control and Prevention (CDC), professional journal publication policies, and public health practice suggest a strong resurgence of interest in community-based participatory research in multiple arenas.

**INTERVENTIONS:** Data from three public health activities will be discussed: CDC's Urban Research Centers, working in full partnership with inner-city communities; the Prevention Research Centers, CDC's largest extramural research program; and the history of public health partnerships with communities.

**OUTCOMES:** Current models of doing public health research with, rather than on, communities will be discussed, with a focus on how research questions are defined, interventions are designed and implemented, and study findings are applied to improve community health and quality of life.

**CONCLUSION:** Community-based participatory research, with its many rewards and challenges, is a deeply rooted aspect of our public health past, present, and future.

**LEARNING OBJECTIVES:** Participants should be able to describe the concept of community partnership, variations in approaches to partnering, and the implications for public health of a sustained commitment to community-based participatory research.

## A Nurse Case Manager Model for Improving the Health of Elders in the Community

K. Krichbaum, D. Walli, M. Mitchell

**OBJECTIVE:** Explore the value of a nurse case management model to promote health and help elders to manage chronic illness. The model partnered each elder enrollee with a registered nurse (RN) for 6 months.

**SETTING:** The Healthy Seniors Project (THSP) was developed by staff at the Living at Home/Block Nurse Program (LAHBNP) in St. Paul, Minnesota; it was selected as one of four sites for the Community Nurse Organizations (CNO) demonstration program sponsored by the Center for Medicaid and Medicare Services (CMS) to test new models of community-based care. Unique features of THSP were (1) LAHBNP was the only community-based program, (2) both urban and rural sites were used, and (3) neighborhood volunteers assisted with the care of elders.

**METHODS:** CMS used an experimental design to compare effectiveness and efficiency of models at the four sites. Two groups (treatment and control) were compared in terms of outcomes of satisfaction, health, and use of services. Enrollees were randomly assigned to groups. Two sources of data were used: CMS data, the CNO sites data. A secondary analysis, done by the American Nurses Association, was based on CMS data but focused on comparing use of high-cost and high-volume services. Additional data were collected and analyzed by the LAHBNP staff.

**RESULTS:** At THSP, there were higher levels of health, higher levels of enrollee satisfaction, and reduced costs in terms of fewer hospital admissions, emergency room visits, outpatient expenditures, and shorter stays for those admitted in the treatment group. THSP also reported high levels of nurse job satisfaction.

**CONCLUSION:** The nurse case management model at THSP was an effective and efficient means for improving the health of and managing chronic disease in both urban and rural community-dwelling elders.

**LEARNING OBJECTIVE:** Participants will be able to describe the use of a nurse case management model.

# Developing a Comprehensive Electronic Program Evaluation System

*J. Allen, E. Suarez, I. Sameem*

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TRACK

R21

**SETTING:** The Bureau of Health Promotion and Risk Reduction (BHPRR) provides up to \$6.3 million to 104 local agencies to address tobacco use prevention, cardiovascular disease, breast and cervical cancer, intentional/unintentional injury, and rape prevention. Decision makers are asking for greater accountability and evidence regarding the impact of funded interventions.

**METHOD:** Major tasks included achieving consensus on a definition of population-based interventions; identifying population-based activities with accompanying essential components; developing core program standards and minimum performance expectations; developing data collection tools; forming partnerships with information technology professionals; and managing conflicts due to change.

**RESULT:** The BHPRR has a commonly used, consistent mechanism to determine

- The extent to which funded agencies are meeting program standards.
- The extent to which funded agencies are meeting goals and objectives.
- Provision and types of technical assistance rendered to subgrantees.
- Response of subgrantees to technical assistance.
- Tracking Healthy People 2010 objectives.
- GIS analysis of program activities.
- Web-based reporting system for subgrantees.
- Electronic Data Collection Tool for Site Visits.

**CONCLUSION:** The Subgrantee Performance Evaluation System (SPES) will allow program staff and our local partners to examine activities relative to public health concerns and make the necessary adjustments for maximum impact program effectiveness.

**LEARNING OBJECTIVE:** Participants will be able to identify the benefits and challenges of developing a comprehensive program evaluation system.

## Using Scientific Information to Develop Public Policy

D. Hoffman, D. Stroup, J. Tucker

**PURPOSE OF THE PROGRAM:** To highlight the scientific and policy perspectives in the development and uses of the *Burden of Chronic Diseases and Their Risk Factors: National and State Perspectives*.

**SETTING:** The fourth edition of the *Burden of Chronic Diseases and Their Risk Factors: National and State Perspectives* is being released at the 16th National Conference on Chronic Disease Prevention and Control. The book includes a national perspective on chronic diseases as causes of death in the United States; state-specific data on rates of death from heart disease, cancers, stroke, and diabetes; information on the prevalence of three major risk behaviors (tobacco use, lack of physical activity, and poor nutrition) and use of preventive services (mammography screening, sigmoidoscopy, fecal occult blood test, and health-care coverage); and detailed information on the prevalence of chronic diseases, risk factors, and preventive services in individual states. A new section highlights arthritis as a leading cause of disability. The appendix includes technical notes and information on funding to states to target chronic diseases and their risk factors.

**INTERVENTIONS:** Information that clearly depicts the burden of chronic diseases at national and state levels is presented. The book is designed to be useful to policy makers, the public health community, and anyone interested in addressing the burden of chronic disease.

**OUTCOMES:** Program administrators and policymakers depend on this information to prioritize and implement chronic disease programs in their states. The publication can be used in various settings to drive research and policy. Mortality and risk factor surveillance data were primarily used to document the burden of chronic diseases.

**CONCLUSIONS:** Although other documents typically illustrate disease-specific information only, this book provides data in an easy-to-read format that encompasses many chronic diseases and risk factors.

**LEARNING OBJECTIVES:** Participants should better understand how science drives public policy in the public health arena and be able to identify ways in which the book can benefit their organization.

# Medication Readiness: Increasing Compliance and Safety Through Patient Education

S. Dolley, L. Sullivan

7

TRACK

R23

**OBJECTIVE:** To reduce patient readmissions to a public acute care psychiatric facility via multidisciplinary interventions in the medication use process.

**SETTING:** Well-aware that failure of patients to adhere to prescribed medication regimen (noncompliance) is a common reason for hospital admissions across all settings, clinicians working on the Quincy Mental Health Center Inpatient Unit, an acute, locked adult psychiatric inpatient unit operated by the Commonwealth of Massachusetts Department of Mental Health, developed and implemented a comprehensive program to promote patient medication compliance.

**METHOD:** A review of literature was conducted and an assessment tool was developed. Tested for reliability and validity, the *Assessment of Medication Readiness* tool addressed four areas demonstrated to effect medication compliance. Patients were assessed on admission, during hospitalization, and prior to discharge. A comprehensive program of education and training that addressed the areas of medication knowledge, ability to pay for medication, ability to obtain medication, and historical compliance was developed and implemented.

**OUTCOMES:** During the program's first year, 108 patients, representing 88% of admissions were enrolled in the program. The average Medication Readiness score on admission was 3.8. Average score on discharge was 7.7, representing a 100% increase in the Medication Readiness rating. Further, the 30-day readmission rate declined from 15% in January, 1999 to 7% in January 2000, and has remained static.

**CONCLUSION:** Data collected to this point suggests that a comprehensive program of training and education such as the one implemented at Quincy Mental Health Center may have a positive impact on medication compliance and is correlated with a reduction in readmission to the inpatient setting.

**LEARNING OBJECTIVE:** Participants should be able to describe factors contributing to medication compliance and the components of a program for patient education and training addressing these factors.

## Cultural Adaptation of Diet and Physical Activity Intervention Materials for the Latino Community

B. Garcia, A. Ammerman, M. Colindres, K. Tawney,  
L. Macon, N. Aycock

**PURPOSE:** To develop a Spanish-language version of existing diet and physical activity intervention materials aimed at reducing cardiovascular disease risk.

**SETTING:** The Center for Health Promotion and Disease Prevention (HPDP) at the University of North Carolina collaborated with a Spanish-speaking health educator to modify diet and physical activity intervention materials for the Latino community. Latino women from the target population and bilingual/bicultural health professionals provided guidance throughout the process.

**INTERVENTIONS:** To address cardiovascular disease prevention needs of North Carolina's growing Latino population, we adapted the New Leaf diet and physical activity intervention materials originally designed for a low-income, Southern, primarily African American and white population. Formative data about lifestyle behaviors and cultural practices were collected through focus groups with Latino women and through literature reviews. The bicultural health educator worked with HPDP staff to modify the materials, which were then carefully reviewed for cultural appropriateness, grammar, and clarity by bilingual health professionals and lay Latino women. A Spanish-language version of the New Leaf materials was developed — *¡Vida Saludable, Corazón Contento!* (Healthy Living, Happy Heart).

**OUTCOMES:** The Spanish-language materials are currently being tested in a health department setting in North Carolina.

**CONCLUSIONS:** The development of *¡Vida Saludable, Corazón Contento!* demonstrates the feasibility of culturally adapting and translating health education materials for the Latino community when a collaborative process involving input from the target population and bicultural health professionals is used.

**LEARNING OBJECTIVE:** Participants should be able to develop a process for modifying health education materials to be culturally relevant and linguistically appropriate for Latinos.

# Recurrence Prevention Program: A Social Marketing Approach

A. Griffen

3

TRACK

R25

**PURPOSE OF THE PROGRAM:** The program educates women at increased risk of pregnancies affected by neural tube defects (NTDs), specifically women who have a child with spina bifida, who have spina bifida themselves, or who have had an NTD-affected pregnancy previously. The program also educates women's health care providers about the importance of prescribing increased folic acid before future pregnancies.

**SETTING:** The program works on a national level with its affiliates and a network of spina bifida clinics in addition to various partners on the National Council on Folic Acid and from the private sector.

**INTERVENTIONS:** The program combines health education, media advocacy, and social marketing to increase awareness of folic acid among the target audiences. A series of materials has been developed for women and their health care providers.

**OUTCOMES:** Baseline audience awareness and consumption data among the women indicated that 33% are taking folic acid and 49% have received folic acid counseling from their health care provider. Folic acid is being mentioned to women and their health care providers more often by our spina bifida clinics and local affiliates.

**CONCLUSIONS:** Continued awareness efforts are needed for the target audiences, as most women at increased risk for NTDs are not aware of their need for prescription folic acid.

**LEARNING OBJECTIVES:** Participants should be able to describe the use of formative audience research with programming that aims to influence health behavior of specialized maternal groups and health care providers.

## Evidence-Based Strategies for Improving Senior Quality of Life

A. Johnson, H. Wetzler, D. Bush, J. Ware

**PURPOSE OF THE PROGRAM:** To improve the health of seniors by initiating evidence-based programming in a large retirement community.

**SETTING:** As longevity increases, healthy years also need to increase. Willow Valley Retirement Communities in Lancaster, Pennsylvania, has more than 1,700 seniors, with an average age of 81 (61% female). Since opening in 1984, this retirement community has progressed to a healthy living model focusing on education, prevention, and self-management of health.

**INTERVENTIONS:** Beginning in 1998, more than 1,400 seniors completed an annual health assessment encompassing functional health and well-being (SF-36), prevention, and disease prevalence. Community health reports were used to educate community leaders and employees prior to annual health program planning. Confidential individual health reports were sent to each senior prior to community education and "What's new for you in health programs" seminars.

**OUTCOMES:** SF-36 scores exceeded the U.S. norms for comparable age groups. There was a significant association between SF-36 scores and nursing home utilization. Specifically, walking ability highly correlated with quality of life, and this information led to specific land, water, and health education program enhancements. Comparable 5-year normative data for ages 60–100 were not available, so we established our own.

**CONCLUSIONS:** Functional outcomes data are much more useful than disease information for senior health planning. Three key principles for promoting senior health were identified.

**LEARNING OBJECTIVES:** Participants will be able to describe the value of evidence-based programming using functional health assessments and state three principles for cultivating healthier senior communities.

# Use of Qualitative Techniques to Develop and Refine Physical Activity Messages for People with Arthritis

K. Harben, T. Brady, J. Snizek

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TRACK

R27

**OBJECTIVE:** To use accepted qualitative techniques to develop and refine messages encouraging physical activity (PA) for arthritis self-management among people with arthritis (PWA) of lower socioeconomic status (SES).

**SETTING:** Increasing consideration of PA for arthritis self-management is a goal of CDC's communication campaign *Physical Activity. The Arthritis Pain Reliever.* Preliminary research with PWA of lower SES confirmed that the benefit of less pain is motivating, but few associated PA with less pain or used it for self-management.

**METHOD:** Key findings from formative research were used to draft message concepts for testing in 12 focus groups of white and African American PWA. Following analysis of focus group findings, message concepts were developed into radio and print executions, which were discussed in in-depth interviews with 24 PWA.

**RESULTS:** PWA exposed in focus groups to messages about PA as a tool for managing arthritis identified the most appealing benefits as less pain, importance of family, and willingness to pay cost now (some pain) for benefit later (less pain). Interviewees exposed to print and radio executions successfully recalled that research shows PA can reduce arthritis pain.

**CONCLUSIONS:** Focus groups followed by in-depth interviews are effective qualitative techniques to obtain audience feedback. Focus groups are cost-effective and afford multiple views on message concepts. In-depth interviews can confirm focus groups findings and provide details for refining executions.

**LEARNING OBJECTIVES:** Participants should be able to describe proper sequence and elements of qualitative techniques for (1) testing audience receptiveness to message concepts and (2) refining concepts into final executions.

## Conducting Community Action Prevention Intervention Research with Urban Minority Youth: Lessons Learned

K. Pittman, C. Grantham, R. Solorzano, B. Glenn

**PURPOSE OF THE PROGRAM:** Practical goals of the intervention study include (1) increasing personal choice and responsibility awareness regarding health risks (alcohol, tobacco, and other drug use; violence/injury; and early sexual intimacy) among youth while (2) empowering a significant increase of personal and interpersonal competency development necessary for successful transition to young adulthood. The *long-term aim* of this study is to reduce risk behaviors among middle school-aged youth.

**SETTING:** Through a university-affiliated, community-based partnership, prevention methods and materials for urban minority youth were developed. This prevention intervention study will provide the evidence necessary to positively influence health decisions among minority youth and guide policy changes.

**INTERVENTIONS:** Study intervention protocol includes an interactive 10-module program, followed by a support-group mentoring program as a reinforcing strategy. Additional intervention features include a parent and community influential component, an incentive program, and a peer leader component.

**OUTCOMES:** Culturally, developmentally, and contextually appropriate education materials/methods were developed for urban minority youth in community settings. A Web site with Internet-based evaluation tools (process tools and Youth Multiscale Profile participant survey) was developed, along with a marketing portfolio. Community influential training and community-integration strategies were highlighted outcomes.

**CONCLUSIONS:** Lessons learned provide insight into successful strategies: engaging schools and community youth centers, accessing youth (recruitment/retention efforts), tri-level consent acquisition, materials/method development for youth impact learning, logic model evaluation plan development, and program support/sustenance.

**LEARNING OBJECTIVE:** Participants will be able to anticipate the practical strategies needed to develop, implement, evaluate, and sustain a successful prevention intervention program for minority youth within communities.

# Government Campaigns Don't Just Blast-off: What It Takes to Launch a Campaign to Girls

N.A. Kerr, A. Blankenship, J. McDivitt

3

TRACK

R29

**PURPOSE OF THE PROGRAM:** The National Bone Health Campaign (NBHC) is a multiyear national campaign to promote optimal bone health in girls aged 9–12 years old, thus reducing their risk of osteoporosis later in life. The goal is to educate and encourage young girls to establish lifelong healthy habits, especially increased calcium consumption and physical activity to build and maintain strong bones.

**SETTING:** This campaign is a partnerships among the Department of Health and Human Service's Office on Women's Health, Centers for Disease Control and Prevention, and the National Osteoporosis Foundation, with outreach to states and nonprofit organizations.

**INTERVENTIONS:** Using a social marketing approach, extensive formative research resulted in strategies and messages for girls and parents.

**OUTCOMES:** Officially launched in September 2001, outcomes to date include a research document for health professionals, a Web site for girls, radio and print ads for girls and parents, and supporting print materials. A baseline survey was conducted in September 2001.

**CONCLUSIONS:** Lessons learned will be discussed in the following areas: contribution of social marketing, partnerships, and what it takes to get the message right.

**LEARNING OBJECTIVES:** Participants will learn what the NBHC is, and understand the barriers faced in launching it and the future direction of the campaign.



## Recognizing, Diagnosing, and Treating Patients with Behavioral Health Needs: Gatekeeper Model of Care

A. Neiman

**OBJECTIVE:** To examine the caseload, treatment patterns, perceived barriers, and desired resources among primary care physicians (PCPs) in recognizing, diagnosing, and treating patients with behavioral health needs in the Boston area.

**METHODS:** A 28-item pilot survey was administered to 54 PCPs at Boston Medical Center and five Community Health Centers in Boston. Specialty, experience, caseload, treatment patterns of behavioral health diagnoses, barriers, and resources needed to provide behavioral health services in the primary care setting were queried.

**RESULTS:** Twenty family medicine physicians (FMs) and 34 internal medicine physicians (IMs) were surveyed. Overall, 89% reported a caseload of more than 300 patients. Eighty-three percent felt comfortable or somewhat comfortable in diagnosing behavioral health needs in their patients. IMs were significantly more likely to prescribe medications than FMs ( $p = 0.011$ ), and FMs were more likely to provide referrals to behavioral health specialists. Among all respondents, compliance (89%) and access to behavioral health specialists (87%) were common barriers reported. Resources most desired were consultations with behavioral health specialists (63%) and continuing education regarding psychotropic medications (54%).

**CONCLUSION:** While many PCPs are the first to encounter great volumes of patients with behavioral health needs, most would like additional resources to help strengthen their ability to provide comprehensive behavioral health care.

**LEARNING OBJECTIVE:** Participants should be able to (1) describe perceived barriers PCPs encounter in providing behavioral health services and (2) identify effective ways in which these barriers can be addressed.

# Communication Campaigns as a Step Toward Smoke-Free Places

P. Anderson

3

TRACK

R31

**PURPOSE OF THE PROGRAM:** To increase knowledge of the health risks of environmental tobacco smoke (ETS) and the number of family members protected from ETS.

**SETTING:** The Northwestern Health Unit serves 19 municipalities and others within a geographic area 191,567 square kilometers, with a population of 85,000 in Northwestern Ontario. Health unit staff and community partners joined together for 1 year planning for a regional smoke-free homes contest and awareness campaign.

**INTERVENTIONS:** A 12-step planning process was implemented. The target group was identified and interviewed to determine the approach for the campaign. The message was identified and tested using focus groups. Households registered to participate in the contest, and the communication campaign increased awareness of the impact of ETS.

**OUTCOMES:** A total of 881 households registered for the contest, and 330 monitoring forms were returned following the contest. Ninety-five percent of the registrants plan to continue with smoke-free changes. Four coalitions were established at the contest time, and six more coalitions have formed.

**CONCLUSIONS:** In this northern/rural setting, this campaign and contest was a step toward moving a blue-collar region to action regarding smoke-free spaces. Since this campaign, some restaurants are smoke-free, facilities that allow smoking are non-smoking when children are present, and two coalitions are working toward smoke-free spaces bylaws.

**LEARNING OBJECTIVES:** Participants will take away an example of the 12-step approach to planning a communication campaign and contest. Participants will have an opportunity to see how increasing awareness of an issue is an important first step in moving toward environmental support and policy development in a health promotion model.

## Factors Associated with Alcohol Use Among Youth: Results from the Sarasota Demonstration Project

D.K. Eaton, M.S. Forthofer, L.B. Bailey, K. McCormack Brown,  
C.A. Bryant, R.J. McDermott

**OBJECTIVE:** To identify the factors significantly associated with alcohol use among 6th- to 10th-grade youth in Sarasota County, Florida.

**SETTING:** For the past 3 years, the Florida Prevention Research Center has been working with a coalition of Sarasota County community members to apply the principles of community-based prevention marketing (CBPM) to reduce alcohol use among youth. CBPM promotes social change through the use of evidence-based research to identify behavior determinants and applies social marketing techniques to change behavior.

**METHOD:** A 147-item survey to assess alcohol use determinants was developed on the basis of relevant literature and results from formative research conducted among Sarasota County young people. During the spring of 2001, the survey was administered to a total of 2,407 students. Logistic regression was used to identify the determinants of alcohol use.

**RESULT:** Approximately 67% of survey respondents reported ever using alcohol, 33% reported using alcohol within the past 30 days (recent use), and 25% reported drinking five or more drinks in one day during the past year (binge drinking). Family factors, perceived benefits and barriers to alcohol use, and perceived social norms were significant predictors of each of the three alcohol behaviors.

**CONCLUSIONS:** Survey results revealed that personal, family, and community factors influence youth alcohol use. A communitywide social marketing campaign that targets these factors is currently being developed by the CAC.

**LEARNING OBJECTIVES:** Participants should be able to identify the factors significantly associated with alcohol use among young people in Sarasota County and identify effective information channels for preventing alcohol use.

# Case-Finding Strategies in a Community-Based Depression Treatment Program for Older Adults

P.S. Ciechanowski, S.J. Schwartz, E.H. Wagner

**OBJECTIVE:** To evaluate the effectiveness of case-finding strategies and factors associated with participation in a community-based depression treatment program for physically impaired and socially isolated older adults.

**SETTING:** A randomized controlled trial of a comprehensive, community-based treatment program of minor depression and dysthymia in clients referred from various community agencies. The treatment program includes problem-solving therapy and systematically increasing social, physical, and other pleasant activities.

**METHOD:** Agency case workers routinely screened clients aged 60 years and older using a two-item depression screening instrument during regularly scheduled visits or phone calls. This recruitment strategy and demographic factors associated with participation were examined.

**RESULTS:** Preliminary data suggest that case-finding by social workers serving disadvantaged elders resulted in recruitment of an ethnically diverse (53% nonwhite), low-income (70% <\$10,000), physically impaired (62% disabled), and socially isolated (20% married or cohabitating) study population (N=121). Screen-positive clients agreeing to participate were younger than clients refusing to participate (74 vs. 76 years,  $P = .02$ ), but did not differ by gender, race, income, marital or disability status from those refusing or those who were subsequently ineligible at a second-stage eligibility screen.

**CONCLUSION:** Case-finding using routine depression screening by community agency social workers was feasible and resulted in a diverse and representative study sample. We will further explore factors associated with participation in this randomized controlled trial.

**LEARNING OBJECTIVE:** Participants will learn the advantages and challenges of using social service agency case workers for depression case-finding among isolated, disabled, low-income older adults.

## Development of Educational Materials for Hispanics with Arthritis Who Have Low Literacy Skills

M.D. Cabrera, H. Murphy, K. McCormack-Brown, C.A. Bryant

**PURPOSE OF THE PROGRAM:** To research low-literacy and linguistically appropriate arthritis educational materials for Hispanic populations in Florida and to develop a communications plan for the development of Hispanic materials on arthritis.

**SETTING:** The Florida Department of Health contracted with the University of South Florida, College of Public Health to develop a communications plan for Hispanics with arthritis who have low-literacy skills.

**METHODS:** Fifty-four Hispanic males and females, aged 38–82 were interviewed. Educational materials were evaluated and analyzed according to the following six critical criteria: usefulness, attractiveness, comprehension, relevancy, acceptability, and persuasiveness. Low-literacy guidelines were incorporated into the pretesting protocol to identify effective methods for information layout and dissemination.

**RESULTS:** We identified potential program partners, effective information channels, trustworthy spokespersons, and helpful message design elements for future information dissemination efforts in targeting Hispanics with arthritis; assessed the information needs of and the content of educational materials for Hispanics with low literacy skills; and developed message design guidelines for use in the design of educational materials for Hispanics with arthritis. Findings will be discussed in the presentation.

**CONCLUSION:** Most arthritis educational materials are not designed for readers with low literacy skills. Such readers are intimidated by hard-to-read materials and are therefore less informed about their chronic condition. Analyzing and evaluating materials with members of the target audience can enhance the overall effectiveness of the final product.

**LEARNING OBJECTIVES:** Participants will be able to describe the process by which low-literacy materials are evaluated for use in the Hispanic population and the methods used to design an effective communication plan.

# Emotional Health of Women with Systemic Lupus Erythematosus: Implications for Health Services Delivery

G.D. Weaver

**BACKGROUND:** Systemic lupus erythematosus (SLE) is a chronic, autoimmune, multisystem disease that affects mainly women. Because of its serious and unpredictable nature, SLE is likely to adversely impact emotional health.

**OBJECTIVE:** To examine the emotional health status of 83 women who have been diagnosed with systemic lupus erythematosus.

**METHOD:** Participants were recruited through the Texas Gulf Coast Chapter of the Lupus Foundation of America. Face-to-face structured interviews assessed women's level of depressive symptomatology, lupus symptomatology, presence of psychological care, and psychotropic medication use.

**RESULTS:** The mean depressive symptomatology score was 16.01 (CESD scale), indicating that these women were at high risk for depression. Forty-two percent had scores of 16 points or above. Similarly, 42% reported having been diagnosed with depression or other mental health problems, and 69% reported having neurologic SLE symptoms. During the preceding 2 weeks, 22% had used tricyclic antidepressants, 10% had used benzodiazapines, and 24% had used serotonin agonists. During the preceding 12-month period, only 19% had seen a psychologist or psychiatrist.

**CONCLUSION:** The women were at high risk for emotional problems. However, the percentage seeing a psychiatrist or psychologist or using medications that may provide some stability was also low. Overall, many women were not receiving needed psychological care, and many of those who did received it from a rheumatologist or primary care physician.

**LEARNING OBJECTIVE:** Participants will be able to describe the psychological care needs of women who have a chronic, debilitating disease.

## Using a Social Marketing Approach to Promote 1% Milk to Low-Income Latino Mothers

E.J. Bell, N.A. Martinez, C.G. Walter, L.M. Rodriguez, M.C. Wang,  
J. Silberstein

**PURPOSE OF THE PROGRAM:** To improve the bone health of low-income Latinas and their children.

**SETTING:** Partners included California Project LEAN (Leaders Encouraging Activity & Nutrition) of the California Department of Health Services and Public Health Institute, University of California Berkeley, and the San Bernardino and Monterey county public health departments.

**INTERVENTION:** Social marketing served as the framework for planning and implementing the California Bone Health Campaign for Low-Income Latino Mothers. The campaign design was based on formative research, including a literature review, environmental scan of bone health campaigns, key informant interviews, focus groups, and consumer intercept surveys. After reviewing the research, program planners and a panel of experts who work with the Latino population identified the behavioral objective of the campaign as adding one extra serving of 1% milk to the daily diets of low-income, Spanish-speaking Latino mothers and their school-aged children. Milk sales data and the target audience's attitudes, knowledge, and behavior regarding 1% milk were evaluated before and after the campaign in two intervention and control sites. The campaign included paid Spanish-language radio commercials, a slogan, community events, taste tests of 1% milk, and bone health educational sessions led by lay health workers (*Promotoras*).

**OUTCOMES:** Pretest and posttest survey results and milk sales data will be presented. Lessons learned will also be shared.

**CONCLUSIONS:** Social marketing provides a true consumer-driven approach to motivating the target audience to adopt a healthy behavior.

**LEARNING OBJECTIVES:** Participants should be able to identify strategies for promoting 1% milk to Latinas, using social marketing principles.

# Sun Protection Attitudes and Behaviors Before and After Senator John McCain's Melanoma C.

P. Cooper, P. D. Bozzo

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TRACK

R37

**OBJECTIVES:** To test whether Arizonans aware of Senator John McCain's melanoma diagnosis exhibited more positive attitudes toward sun protection and fewer risky sun exposure behaviors than those unaware of this news event or of respondents in a baseline survey.

**SETTING:** On August 16, 2000, Arizona senator and former Republican presidential candidate John McCain publicly announced that he had developed melanoma. In the 7 days that followed, McCain's condition was the subject of intense news coverage.

**METHOD:** The sun protection attitudes and behaviors of 318 Superior Court jurors in Pima County, Arizona, were measured 6 weeks after the news of McCain's melanoma broke (October 2000). The results of this survey were compared with sun protection data collected from 298 jurors before this news event (October 1999).

**RESULT:** The majority of participants (83.3%) correctly identified John McCain as the public figure who had recently developed melanoma. We found no differences in the sun protection attitudes and behaviors of those who recalled McCain's melanoma, those who did not, and those in the baseline sample.

**CONCLUSION:** We found no evidence was found that Senator McCain's melanoma affected the sun protection practices and behaviors of Arizona residents. However, although the baseline survey was not designed to detect change motivated by a discrete event, we were obliged to use its less than optimal indicators in our follow-up survey in order to compare results before and after Senator McCain's announcement.

**LEARNING OBJECTIVE:** Participants should learn about the difficulty of evaluating the impact of celebrity health plights because of their unpredictability and the difficulty of securing baseline data.

## Got a Minute? Give It to Your Kid: Best Practices for Parenting Your Teens amid Their Vast Choice of Addictive Substances

R.P. Griffith, V. Medrano

**SETTING:** This intervention kit for parents is specifically geared to smoking prevention, but many of its recommendations can be applied to other chronic disease risks. Many parenting methods shown to be effective in fending off tobacco addiction can be used to influence youth to make healthy decisions about other risks, such as unprotected sex, alcohol use, and violence. Any parenting group with an interest in children's health could benefit from the focus-group-tested materials in this kit.

**INTERVENTION:** The social marketing kit, reproduced entirely on a CD-ROM, includes colorful materials that local groups can use, adapt, and custom-print for their own needs. Contents include brochures, posters, public relations strategic planning, a Powerpoint presentation, fact sheets, question-and-answer sheets, and a full explanation of the methodology.

**OUTCOMES:** These formative evaluation methods were used in developing this health communication product; (1) assessment of the needs and interests of state programs, (2) analysis of HealthStyles audience segmentation data, (3) convening of a 60-member expert panel prior to product development, (4) focus group testing of messages, and (5) mall intercept testing as well as review by state program officials prior to release.

**LEARNING OBJECTIVE:** To equip state and local prevention specialists and a wide range of community leaders with a science-based social marketing toolkit aimed at parents as an intervention against smoking and other unhealthy choices.

# Confessions of Public Health Media Hogs

P. Sarsfield, P. Anderson

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TRACK

R39

**PURPOSE:** To outline the methods and results of interacting with media in a rural region of northern Ontario (Canada) so as to enhance public and funder awareness of disease prevention and health promotion needs.

**SETTING:** There are 19 municipalities, 39 First Nation communities, and large unincorporated areas in the northwestern portion of Ontario, Canada. The total population is about 85,000 in an area the size of Minnesota. The Northwestern Health Unit has 11 offices and 125 staff, with a total annual budget of \$7.5 million (Cdn).

**INTERVENTION:** Regional media outlets ask for rapid responses regarding issues directly or indirectly linked to public health services. The issues are often complex, involving political, administrative, and relative-risk concerns, and require brief responses in nontechnical language that should be attention-catching yet noninflammatory. Methods of media intervention include public service announcements, paid advertisements, letters to the editor, and interviews.

**OUTCOME:** Since we designated media contacts as URGENT, it is our perception that the media coverage of disease prevention and health promotion concepts and public expectations for public health services have both increased. However, we lack the resources to test whether such increases have actually occurred. Funding increases for all services have not kept pace with demand.

**CONCLUSIONS:** A media-friendly, nontechnical, relative-risk approach to information sharing can be effective in increasing public awareness of health promotion and disease prevention issues in a rural area, but it is not necessarily effective in increasing funding for these issues.

**LEARNING OBJECTIVES:** Participants will be encouraged to consider similarities and differences in the roles and rules of the media and those of the public health service.



## Lessons from a Multipartner Smoking-Cessation Media Campaign Initiative

K.K. Gutierrez, J. McKenna

**PURPOSE OF PROGRAM:** To help countries use media to increase their smoking cessation rates, through a collaboration of the World Health Organization, the Office on Smoking and Health of the Centers for Disease Control and Prevention (CDC), the Massachusetts Tobacco Control Program, and three pharmaceutical companies.

**SETTING:** The project started with a focus on Europe; however, the long-term geographical scope will be global.

**METHODS:** The project included several components, including a review of cessation campaigns, the use of previously successful “Why to Quit” ads, production of a “How to Quit” ad, the production of a toolkit to help countries conduct their own campaigns, and a library/clearinghouse of cessation ads that other countries could learn from and potentially use in their own campaigns.

The first three of these components were completed with varying levels of difficulty, and the toolkit and clearinghouse are still in the developmental stages.

**CONCLUSIONS:** Tips for others who need to work with diverse international partners: (1) establish accountability from the start; (2) assess each partner’s strengths and weaknesses, and discuss ways to leverage strengths as well as manage weaknesses; (3) plan for delays; international projects with diverse partners always take much more time than you think they will; (4) remember that baby steps are more realistic than immediate global implementation; (5) learn from your partners and value the unique experiences and resources each partner brings.

**LEARNING OBJECTIVES:** (1) Attendees will gain an appreciation for the complexities but also the benefits of working with diverse partners from nonprofit, governmental, and corporate sectors on a global initiative. (2) Attendees will learn about the process involved in one particular international campaign, as well as what was accomplished by the project team.

# Lessons from a Global Review of Smoking-Cessation Media Campaigns

K.K. Gutierrez, L. Block, J. McKenna

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TRACK

R41

**BACKGROUND:** Many countries and U.S. states have developed tobacco counter-marketing campaigns designed to prevent youth tobacco use, and many published and unpublished reports have summarized results from those campaigns. However, there has been no previous global summary of the lessons learned from all countries.

**PURPOSE OF THE PROGRAM:** To summarize lessons learned by various countries and U.S. states, make recommendations, and share the results with interested countries and states that are developing their own youth tobacco use prevention campaigns.

**SETTING:** This presentation will benefit those who are developing or evaluating campaigns on a variety of topics, not just tobacco control, especially those developing campaigns targeted at youth.

**RESULTS:** To date, the review has not been completed; however, we expect the lessons to help readers determine their target audiences, key messages and tone, media vehicles, media presence, and level of synergy with other program elements. These were the areas in which key lessons were learned in the similar global review of cessation-focused media campaigns conducted last year.

**CONCLUSIONS:** Conclusions will be based on the data collected and analyzed from various countries/states and will help guide tobacco control media campaign managers as they make critical decisions about their own campaigns.

**LEARNING OBJECTIVES:** Attendees will (1) learn which components have been found to contribute to the success of tobacco counter marketing campaigns for youth, and (2) be able to apply the lessons learned to their own media campaign development work, whether related to tobacco use or other youth high-risk behavior.

## An Incremental Approach to Advocating a School Nutrition Policy

P. Anderson, D. Grennier

**PURPOSE OF THE PROGRAM:** To propose an incremental approach to school boards for development and implementation of a school nutrition policy

**SETTING:** A collaborative approach including 11 Good Food for Kids coalitions in a large area of Northwestern Ontario working with 71 schools.

**INTERVENTIONS:** Research shows that 42% of children do not eat a nutritious breakfast and are overweight. Presentations on the importance of good nutrition on learning were made to four school boards and to eight school/parent councils. The response from school boards was nonsupportive. Learning from the Active Schools approach, which has incremental steps to reaching quality daily physical education, the regional coordination committee is developing a similar strategy for a school nutrition policy. As a parallel strategy, the Board of Health is writing letters to local boards of education to encourage the development of a school nutrition policy and to the Minister of Education to encourage a provincial approach to school nutrition policies.

**OUTCOMES:** School nutrition policies are being introduced into the education system in northwestern Ontario in 2001, with the goal of all schools/school boards having a school nutrition policy by 2005.

**CONCLUSIONS:** Most school boards were not willing to develop a nutrition policy despite research results showing that nutrition is associated with children's learning and behavior. A more acceptable incremental approach was proposed to achieve this goal.

**LEARNING OBJECTIVES:** Participants will leave with an example of an incremental approach to improve school nutrition policies.

# Reducing Tobacco Use Among Women: Partnering Health Departments, Grassroots Organizations, and Colleges

R. Murphy, D. Beistle, A.M. O'Keefe

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TRACK

R43

**PURPOSE OF THE PROGRAM:** To provide participants with sample presentations, advocacy tools, and information on the Surgeon General's report on women and smoking.

**SETTING:** Health educators, advocates, community organizers, college campus contacts, etc.

**INTERVENTIONS:** Participants will work through the components of a new toolkit, including its companion video *Women and Smoking: Seven Deadly Myths*, and discuss strategies for initiatives promoting partnerships among health departments, grassroots organizations, and colleges.

**OUTCOMES:** These strategies will further the understanding of the Surgeon Generals' report, and the activities are transferable to health-related policy initiatives.

**CONCLUSIONS:** Coalitions work hard to plan policy initiatives but may not feel comfortable planning and implementing media strategies that will help advance their policy goals. However, developing a clear strategy for media advocacy will help them reach their policy goals while saving them time, effort, and money.

**LEARNING OBJECTIVES:** Participants will be able to explain five activities appropriate for health departments, grassroots organizations, and colleges; describe how to use a new toolkit that focuses on trying to help women quit smoking; and list resources that help women quit smoking.

## Leveling the Playing Field Through Community Partnerships: Taking on Diabetes

S. Palsbo, T. Kroll, M. McNeil

**PURPOSE OF THE PROGRAM:** To foster collaboration among competing health organizations in tackling a high-cost and complex chronic condition.

**SETTING:** Taking on Diabetes is a joint initiative of the American Diabetes Association and the American Association of Health Plans. It fosters three Community Partnerships in New Mexico, Missouri, and New York, bringing together health plans and state and local officials.

**INTERVENTIONS:** Although all three partnerships target health plans and physicians they have different organizational processes and specific interventions. Causal complexity analysis (CCA) was used to analyze the three partnerships in detail.

**OUTCOMES:** One partnership nearly died; one lost momentum; one turned into a “hot group.” Elements necessary for successful initiation include a neutral outsider to provide intellectual resources and technical assistance, a clear mission, and a common need. Sustainability of a partnership requires an initial successful project. Substantial funding or a highly organized structure do not appear to be necessary, and environmental and market factors play a relatively unimportant role.

**CONCLUSIONS:** Many health maintenance organizations are reluctant to invest in chronic care management programs, partly because participants may move to a competing health plan before the first plan captures financial rewards from its interventions. Competing health plans can collaborate to level the playing field by simultaneously offering such programs so that everyone benefits.

**LEARNING OBJECTIVES:** Participants will understand the use of CCA to identify factors necessary and sufficient to initiate and sustain community health partnerships. Participants will be able to apply principles from organizational theory to foster partnerships to combat diabetes and other chronic conditions.

# Tools for Life: Faith-Based Initiatives to Improve Quality of Life in Culturally Diverse Settings

D. Bush, H. Wetzler, A. Johnson

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TRACK

R45

**PURPOSE OF THE PROGRAM:** To improve quality of life using evidence-based community- and self-directed intervention strategies in two culturally distinct faith communities.

**SETTING:** Tools for Life, a culturally flexible methodology, was used to establish creative partnerships with health practitioners and community leaders in two diverse communities: Szekelyudvarhely, Romania, and Douglasville, Georgia, USA.

**INTERVENTIONS:** Health Assessment [SF-36] and Life Management Skills surveys were administered by community leaders. Standardized interviews identified causes of low physical or mental health and the respondent's perceptions of what would need to happen to improve "whole person health."

**OUTCOMES:** Sixty percent of respondents in Romania and 88% in Georgia were below the SF-36 depression screening threshold. In the Romanian community, there was a strong linear relationship between low mental health scores and financial worries. Aggregate data and correlations between health risk behaviors and mental health scores were shared with community leaders, who developed strategies to address needs with finite resources.

**CONCLUSIONS:** In Romania and the United States, standardized self-assessment and self-directed strategic planning data helped church and community leaders address quality of life in practical ways. In rural Romania, data led to community-based mental health planning and right-scaled economic initiatives. In Douglasville, data were used to support individuals in carrying out self-directed strategies to increase their chance of success in job training.

**LEARNING OBJECTIVES:** Participants will be able to describe how functional health assessments provide valid measures of physical and mental health in culturally diverse settings and how self-directed processes can be used to develop and evaluate individual and community interventions to improve quality of life.

## Ascertaining Stakeholders' Interest and Willingness to Participate in a Comprehensive Cancer Control Initiative

K.R. Rowley, A. West, M. Kano

**PURPOSE OF THE PROGRAM:** To assess the interest of stakeholders in participating in the Utah Comprehensive Cancer Control Initiative (UCCCI), a coalition working toward comprehensive cancer control, and to assess needs perceived by these stakeholders regarding cancer control in Utah.

**SETTING:** In 1998, the Utah Cancer Control Program began efforts to develop the UCCCI. The mission of this initiative is to reduce cancer incidence and mortality in Utah through collaborative efforts to provide cancer prevention and control services and programs.

**INTERVENTIONS:** A survey was administered to hospital administrators, physicians, staff from local and state health departments, nonprofit groups, educational institutions, and managed care organizations with a mission related to cancer control.

**OUTCOMES:** The results of the survey revealed support for the UCCCI. Most respondents (84%) perceived a need for a comprehensive cancer plan, and 75% stated they would like to participate in the development of such a plan. Improved cancer education and preventive services were identified as areas of greatest need. As a result of this survey, 50 cancer stakeholders interested in participating were identified and invited to join the initiative.

**CONCLUSIONS:** Utah stakeholders perceive the need for and are willing to join a coalition in order to achieve a comprehensive, collaborative approach to cancer control.

**LEARNING OBJECTIVES:** Participants should be better able to develop research questions, identify stakeholders, and administer a survey to assess stakeholders' willingness to participate in and to assess their perceived needs regarding comprehensive cancer control.

# Utilization-Focused Evaluation of Two Minnesota Community-Based Tobacco Prevention Programs

R.M. Jones, H.R. Britt

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R47

**PURPOSE OF THE PROGRAM:** To evaluate two programs funded by the Minnesota Department of Health that are designed to provide secondhand smoke resources to local and state tobacco control groups and to influence recreational groups to offer smoke-free activities for youth.

**SETTING:** A collaboration among The Association for Nonsmokers—Minnesota, the Minnesota Department of Health (MDH), and the evaluators contracted to conduct utilization-focused evaluation.

**INTERVENTIONS:** Both tobacco prevention programs have stipulated contract duties that need to be fulfilled in order to be in compliance with state requirements. In order to evaluate each contract duty, evaluators developed a logic model and evaluation grid. This framework guided the utilization-focused evaluation.

**OUTCOMES:** Qualitative interviews were done regularly with program staff. Additionally, individuals who utilized secondhand smoke resources were interviewed, and focus groups were conducted with key stakeholders of the recreation program. Evaluation components were used to provide progress reports to the MDH, and program efforts were altered according to findings. Specific evaluation components were also changed to be most useful to program staff.

**CONCLUSIONS:** Utilization-focused evaluation is an effective and useful way to assist community-based programs in demonstrating their progress to funding agencies.

**LEARNING OBJECTIVES:** Participants should be able to describe evaluation methods that can be easily implemented in a community setting and consider how they can integrate utilization-focused evaluation into their own organizations.

## Survey of Restaurants on Smoking Policies—New Hampshire, 2001

E.C. Peterson, S. Knight, M.D. Hiller, A.R. Pelletier

**OBJECTIVE:** To provide information about restaurant smoking policies in New Hampshire and to evaluate restaurants' compliance with the New Hampshire Indoor Smoking Act.

**SETTING:** Exposure to secondhand smoke has been shown to cause lung cancer and to be associated with higher rates of heart disease among nonsmokers. The New Hampshire Indoor Smoking Act was created in 1994 to protect the health of the public by regulating smoking in enclosed places. Previously, no data were available on how restaurants in New Hampshire dealt with smoking.

**METHOD:** A list of 1,742 restaurants in New Hampshire was obtained from a marketing firm using Standard Industrial Classification codes 5812 and 5813. Establishments were selected randomly until 402 had completed a 22-question telephone survey.

**RESULT:** Forty-three percent (95% confidence interval [CI]=38%–48%) of restaurants allowed smoking. Characteristics of restaurants positively associated with allowing smoking were being a non-fast food restaurant (prevalence ratio [PR]=4.6, 95% CI=2.6–8.0), selling alcohol (PR=3.0, 95% CI=2.2–4.3), selling tobacco (PR=2.4, 95% CI=2.0–2.8), and having greater than the median number of seats (PR=2.0, 95% CI=1.6–2.6). Of restaurants that allowed smoking, 96% (95% CI=93%–99%) had a designated smoking area, 84% (95% CI=78%–90%) had a physical barrier between the smoking and nonsmoking areas, and 53% (95% CI=45%–61%) exhibited signs marking the smoking area. Only 45% (95% CI=37%–53%) of restaurants met all three of these requirements of the Indoor Smoking Act.

**CONCLUSION:** Smoking policies appear to differ depending on the type of restaurant. The overall state rate of compliance with the Indoor Smoking Act is low.

**LEARNING OBJECTIVE:** Participants will have an understanding of a method for assessing restaurant smoking policies.

# The Fathers and Sons Project— Enhancing Family Health

*C. Brooks, C. Caldwell*

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TRACK

R49

**PURPOSE OF THE PROGRAM:** To strengthen relationships between nonresident African American fathers and their sons, in an effort to reduce the negative and increase the positive health behaviors of both.

**SETTING:** A community-based participatory research approach, based on empowerment theory, is being used to guide this project. The steering committee, comprising representatives from community-based organizations, the local health department, the University of Michigan, and the community, developed the program's intervention curriculum.

**INTERVENTION:** A series of focus groups was held with fathers and sons to obtain their input in developing the intervention framework. Community buy-in was sought by asking local businesses to support project activities and sustainability. Intervention sessions have educational, cultural, recreational, and community-centered components.

**OUTCOMES:** Participants are linked to community services and resources through a resource guide developed by the project's steering committee. Relationships among residents and community organizations are strengthened by increasing the visibility of organizations and residents' use of their products and services. A comparison group will be used for evaluation.

**CONCLUSIONS:** The Fathers and Sons Project will serve as a model for other communities to follow when designing similar programs. The reduction in negative health behaviors and the increase in positive health behaviors will result in numerous benefits for program participants, their families, and the community at large.

**LEARNING OBJECTIVES:** Participants will be able to describe a community-based approach to reducing negative and increasing positive health behaviors among African American fathers and sons.

## A Measure of Our Success: Developing an Evaluation Plan for a Statewide Asthma Initiative

C. Schott, S. Lyon-Calio, A. Slonim

**PURPOSE OF THE PROGRAM:** To measure the effectiveness of a statewide plan to reduce the burden of asthma in Michigan by integrating an evaluation plan into program implementation efforts.

**SETTING:** Program evaluation is an essential component of public health practice. Yet evaluation is often overlooked in program management and is rarely applied consistently across program areas. The Michigan Asthma Advisory Committee, in collaboration with its partners, developed a comprehensive plan to evaluate the effectiveness of Michigan's Asthma Strategic Plan.

**INTERVENTIONS:** The Centers for Disease Control and Prevention's (CDC's) Framework for Program Evaluation in Public Health was utilized to guide the program evaluation planning process. Each step of the evaluation framework was applied.

**OUTCOMES:** Logic models documenting inputs and short-term, intermediate, and long-term outcomes were developed for each asthma plan recommendation. *Healthy People 2010* objectives for asthma were identified as the primary long-term outcome goals of the asthma program. Logic models and means of measuring outcomes were compiled into a comprehensive evaluation plan.

**CONCLUSIONS:** The evaluation plan improved ongoing program development by identifying step-by-step strategies that could lead to intended outcomes. It also provided a means of assessing the effectiveness of Michigan's asthma program, identifying ways of refining the program, and communicating the program's impact to policymakers and program decision makers.

**LEARNING OBJECTIVES:** Participants should be able to describe (1) how to integrate an evaluation plan into statewide plans; (2) the importance of program evaluation in defining outcomes, monitoring progress, and reporting meaningful results; and (3) how to apply CDC's evaluation framework to prevention and control programs.

# Adenoma Prevalence Among Asymptomatic U.S. Hispanics Residing Near the U.S.–Mexico Border

R.M. Tyroch, M.A. Samman, L. Barrett

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TRACK

R51

**OBJECTIVE:** To examine the prevalence of adenomatous polyps in a screened indigent U.S. Hispanic population residing near the U.S.–Mexico border.

**SETTING:** Reports on the prevalence of adenomatous polyps found upon flexible sigmoidoscopy exist, but prevalence data specific for U.S Hispanic populations near the U.S.–Mexico border are limited.

**METHODS:** Two-hundred seventy-six asymptomatic Hispanic men and women aged 50 or older in El Paso County, Texas, underwent colorectal cancer screening by the fecal occult blood test (FOBT) and flexible sigmoidoscopy. Patients with positive FOBT results were referred for colonoscopy. Adenoma prevalence was calculated for the target population and compared with prevalence rates for asymptomatic U.S. non-Hispanics who had been screened by the same methods.

**RESULTS:** Adenoma prevalence averaged about 10% in flexible sigmoidoscopy studies of asymptomatic non-Hispanics aged 50 or older. The prevalence of adenomatous polyps in our sample Hispanic population ( $n=276$ ) was 8% ( $n=22$ ). (Standard error of proportion was 0.016.)

**CONCLUSION:** The prevalence of adenomas among asymptomatic screened indigent Hispanics in El Paso County, Texas, is comparable with prevalence rates reported for U.S non-Hispanics similarly screened by FOBT and flexible sigmoidoscopy.

**LEARNING OBJECTIVE:** Participants will learn that colorectal cancer screening and surveillance should be as accessible for U.S. Hispanics residing near the Mexican border as for the rest of the U.S. population. Research is necessary to explain why prevalence rates for colorectal cancer among U.S. Hispanics are lower than those among U.S. non-Hispanics.

## Understanding Prevention and Intervention Implications of HIV Risk Behavior Among African American Women

E.Yancey, L. Goodin, F. Murphy, M.Q. Wang

**OBJECTIVE:** To develop and implement a human immunodeficiency virus (HIV) risk-reduction model that is sensitive to the culture and gender of African American women aged 17–44 years residing in inner-city Atlanta, Georgia.

**SETTING:** Reducing the number of new HIV infections in the United States and eliminating racial and ethnic disparities in rates of new HIV infections is the overarching national goal of the Centers for Disease Control and Prevention (CDC). African American women are at high risk for HIV/AIDS in the United States. Few HIV prevention models are culturally sensitive to risk reduction among African American women.

**METHOD:** Surveys were conducted among 440 African American women aged 17–44 years residing in inner-city Atlanta, Georgia. These surveys were designed to identify HIV prevalence and women's attitudes and beliefs about HIV risk-behavior constructs. Focus groups were conducted to provide qualitative data. The prevention model being developed is founded on integration of the theory of gender and power and the NTU principles of the Afrocentric model of HIV prevention.

**RESULTS:** Forty-five percent of the women are at high risk for HIV because condom use is absent or inconsistent; 42% have high-risk male partners; 42% have low risk-reduction intentions; and 33% don't believe peer norms support condom use.

**CONCLUSIONS:** HIV risk is significantly higher among women who hold weak behavioral risk-reduction intentions, perceive relationship barriers to condom use, and accurately perceive themselves at high personal risk for HIV infection. A culturally specific HIV prevention model is suggested.

**LEARNING OBJECTIVE:** Participants should be able to select and use prevention models appropriate for working with identified at-risk populations.

# Surveillance for Myocardial Infarction in the Marshfield Epidemiologic Study Area

R.T. Greenlee, A. Naleway

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TRACK

R53

**OBJECTIVE:** To study time trends in the incidence of first myocardial infarction (MI) among people in the Marshfield Epidemiologic Study Area (MESA), a population-based cohort in north central Wisconsin.

**SETTING:** The occurrence of first MI is an important indicator in cardiovascular disease surveillance, yet it is difficult to quantify without costly registries or special studies. Published data on general population trends in MI incidence are limited.

**METHOD:** MESA consists of the 89,000 persons living in 24 zip codes near several regional centers of the Marshfield Clinic. Validation studies have demonstrated that nearly all residents receive almost all health care from the Marshfield Clinic and affiliated hospitals; all diagnoses and procedures are captured in an electronic medical record. Daily updates in the population denominator allow MI incidence to be calculated in terms of individual person-time.

**RESULTS:** Records of 1,685 first MIs diagnosed during 1992–2000 were available for analysis. From 1992–1994 to 1998–2000, age-adjusted MI incidence declined 5.3%, with greater declines among women. Age-specific incidence increases were observed only among men aged 65 or older and women 75 or older. Overall age-specific rates were very similar to rates from the ARIC (Atherosclerosis Risk in Communities) Study.

**CONCLUSION:** The incidence of first myocardial infarction in MESA has declined modestly in the past decade. Greater declines among younger populations were partially offset by increases among older residents. MESA is a valuable resource for assessing temporal trends in disease incidence.

**LEARNING OBJECTIVES:** Participants will (1) gain knowledge about MI incidence trends in a general population and (2) become familiar with chronic disease surveillance opportunities using MESA.

## Programmatic Experience in Applying Human-Subject Protection Rules

R. Lieb, M. Safran

**PURPOSE OF THE PROGRAM:** To explore real-life challenges faced by state chronic prevention and control programs and by the Centers for Disease Control and Prevention (CDC) in their efforts to apply rules (which were historically developed for clinical research) to modern public health activities.

**SETTING:** The United States and affiliated jurisdictions in the Pacific Basin.

**INTERVENTIONS:** CDC's Division of Diabetes Translation and its grantees in 59 state, jurisdictional, and international health departments collaborate in public health interventions aimed at controlling diabetes in the populations they serve. Most of these interventions involve public health activities that are nonresearch in nature. Interventions conducted by 12% of collaborating health departments involve research. CDC also carries out its own independent research projects. Because federal funding is involved in all of these projects, CDC and the states collaborate to ensure compliance with federal human-subject research regulations.

**OUTCOMES:** CDC and its partners who work with regulations written for clinical settings have developed strategies to apply these regulations to chronic disease programs and public health settings.

**CONCLUSIONS:** Current human-subject regulations written for clinical research can be applied to diabetes control efforts by using strategies developed for protecting human subjects across a variety of chronic disease control programs.

**LEARNING OBJECTIVES:** Participants will be able to discuss two weaknesses in the current human-subject regulations. Participants will be able to describe two strategies that CDC's Division of Diabetes Translation has found helpful in efforts to overcome such weaknesses.

# A Community Advisory Committee's Impact on Domestic Violence Services Following a Natural Disaster

P. Gonzales, J. Peralta, A. Doolen, M. Doolen

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TRACK

R55

**BACKGROUND:** Health Works for Women/Health Works in the Community (HWW/HWC) is a demonstration project aimed at improving health behaviors of blue-collar women. Following a major natural disaster, Health Works After the Flood was funded to address increased stress and intimate partner violence (IPV). Both are participatory research projects informed by the same community advisory committee (CAC) comprising line workers and midlevel managers from participating workplaces and representatives from local community agencies.

**OBJECTIVE:** To describe the role of a CAC in helping a domestic violence agency prepare for an increased number of victims.

**SETTING:** Twelve manufacturing plants in four rural North Carolina counties.

**INTERVENTIONS:** HWW/HWC was under way when Hurricane Floyd hit North Carolina in 1999. The CAC warned project staff of a likely increase in IPV, and project staff immediately initiated a literature search and meetings with local domestic violence agencies. Some of the studies suggested that rates of IPV increase following natural disasters, and project staff shared this knowledge with the local domestic violence agency.

**OUTCOMES:** The warning of a likely increase in IPV rates enabled the domestic violence agency to prepare. When the agency experienced a 33%–50% increase in victims seeking help 6 months after the disaster and continuing to the present, they were ready.

**CONCLUSIONS:** Through participatory prevention research, CAC and university staff were able to anticipate emerging community needs and help a community agency to prepare for a dramatic increase in clients.

**LEARNING OBJECTIVE:** Describe the role of a CAC in addressing emerging needs in a community.



## Determinants of Physical Activity Among Hispanics with Arthritis

M.D. Cabrera, C. Bryant, K. McCormack-Brown, H. Murphy

**PURPOSE:** To identify the determinants of physical activity among the Hispanic population in Florida affected by arthritis.

**SETTING:** Through a cooperative agreement with the Centers for Disease Control and Prevention (CDC), the Florida Department of Health's Arthritis Prevention and Education Program provided funding to the University of South Florida's College of Public Health to conduct focus groups among Hispanics with arthritis in South Florida. Few studies, if any, have assessed the determinants of physical activity among Hispanics with arthritis.

**METHODS:** Focus groups participants were recruited through a convenience sampling process. Each group was limited to 10 participants. Focus groups were conducted until theoretical saturation was achieved.

**RESULTS:** Seven focus groups were conducted with a total of 55 Hispanic males and females with arthritis aged 37 to 84. Focus group results showed that perception of arthritis as a chronic condition is a determinant of physical activity. Perceptions and attitudes toward physical activity and the role it has in the treatment of arthritis is another important determinant. Other factors that motivate individuals to be physically active or not are perceived benefits and costs, social support, and lack of self-efficacy. Findings will be discussed in detail during the presentation.

**CONCLUSION:** Participants were motivated to stay physically active by their desire to manage joint pain, minimize stiffness, prevent disability, and improve their physical and emotional well-being.

**LEARNING OBJECTIVES:** Participants will learn that efforts to promote physical activity should highlight its beneficial effects and promote it as an essential tool to winning the battle against arthritis; that the term *physical activity* should be used rather than *exercise*; and that activity recommendations should fit easily into the target audience's daily routine.

# Pilot Study: A Work Site Wellness Program in a Government Agency

L.D. Wilson, B. Duck, A. Haushalter

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**OBJECTIVE:** To determine the feasibility and effectiveness of a wellness program at a government work site.

**SETTING:** Increasing physical activity is a major goal of *Healthy People 2010*. Little information is available on work-site wellness programs at government work-sites.

**METHODS:** Seventy-six Metropolitan Nashville Health Department employees participated in a 6-month pilot. Pre- and post-test measurements included medical, psychological, physical, and subjective components. The study design incorporated (1) exercise 3 times a week for 30 minutes during work hours, led by a team member, (2) ongoing 1-on-1 case management, (3) educational seminars, and (4) support groups.

**RESULTS:** Results were recorded on individual, community, and systems levels. Sixty-seven people completed post-test evaluations. Two people were identified with untreated hypertension. The total average cholesterol level of participants decreased from 203 to 192; the percentage of participants who exercised more than three times a week increased from 34% to 47%. The percentage that were satisfied with their life increased from 58% to 70%. Because of these results, the program was continued. Partnerships have been formed to expand the wellness program to all Metropolitan Nashville government employees.

**CONCLUSIONS:** Although not statistically significant, the results indicate a trend in this population toward higher rates of behaviors that contribute to a reduction in risk for cardiovascular disease, cancer, stroke, and hypertension. Wellness programs can be successfully implemented and managed within a government agency.

**LEARNING OBJECTIVES:** Participants will be able to (1) identify the resources necessary to design and implement a wellness program within a government agency and (2) identify marketing tools appropriate to the setting.

## Using a Partnership Approach to Facilitate Survey Development and Implementation

J. Wiecha, C. Hannon, L. Keefe, A. Harris, S. Gortmaker

**PURPOSE:** To assess youth access to physical activity programs, reduce disparities in access, and create a collaborative infrastructure to facilitate these aims.

**SETTING:** Play Across Boston, a collaboration among the Harvard Prevention Research Center (PRC), Northeastern University's Center for the Study of Sport in Society, and city government, developed a survey of programs and facilities in Boston.

**INTERVENTIONS:** Youth access to sports and physical activity programs was identified as an issue of community and academic importance in the context of the current epidemic of obesity and chronic disease. Project goals were set jointly by academic and community stakeholders. Project staff cultivated key partnerships and developed an advisory board of community physical activity providers. All parties had input into survey development and implementation.

**OUTCOMES:** The final survey tool reflected community concerns and the scientific goals of the project. The collaborative approach produced a high response rate (89%) among 274 programs and the first enumeration of virtually all city-based providers. The project has sustained the city's interest in assessment methods that will further city goals on youth development; city officials plan to adapt these assessment methods at other city offices.

**CONCLUSIONS:** Academic, community, and government partnerships can work effectively on scientific investigations of community interest. A useful method of assessing access to youth sports and recreation opportunities has been developed and tested in five cities in Massachusetts.

**LEARNING OBJECTIVES:** Participants should be able to identify steps for developing effective academic/community collaborations and understand a novel approach to assessing youth access to physical activity programs.

# Ozone Monitoring Project in Atlanta Metropolitan Counties

R. Bright, A. Bledsoe

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R59

**OBJECTIVE:** To determine ground levels of ozone at 30 sites in Metropolitan Atlanta during the summer and winter seasons.

**SCOPE OF WORK:** Twenty-two Atlanta Metropolitan County (AMC) sites were chosen for ozone monitoring, either in areas of (1) high vehicle transport and low to no greenery and (2) high vehicle transport and high greenery; in addition, 8 sites bordering AMC sites were chosen for comparison. Maps were created to select ozone-monitoring sites that include major roadways and greenspaces in Metropolitan Atlanta through the use of GIS Arc View 3.2. Ozone monitors (Zikuas) are used to determine readings daily. This research is being conducted in summer and winter phases: July–September 2001 and January–February 2002. Fifteen groups provided volunteers for data collection.

**RESULTS:** Preliminary results from four monitoring sites show that highly traveled roadways with high greenery have lower ozone levels than highly traveled roadways with less greenery.

**CONCLUSIONS:** On the basis of preliminary findings, we expect that the results will enable planners to get localized data to support designs for healthier communities.

**LEARNING OBJECTIVE:** Participants will learn how to organize community-based organizations and obtain support from governmental and nongovernmental organizations for local environmental health research.

## Assessing and Building Community Capacity by Blending Action with Theory Development

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**PURPOSES OF PROGRAM:** To develop practical tools for assessing and building community capacity to implement and sustain health promotion initiatives. To use the information gained to refine and test theory that links the capacity of a community to address chronic disease and other health issues to its performance.

**SETTING:** Practical tools and theory were generated by four U.S.–Mexico border coalitions and refined by investigators and a class of graduate students in public health.

**INTERVENTIONS:** We developed and piloted tools to (1) observe community capacity by participating in partnerships and providing feedback and (2) help partnerships identify, take advantage of, and build community capacity to effectively implement and sustain health improvement efforts.

**OUTCOMES:** Data gathered from the application of these tools and other investigations were used to refine a midrange program theory for determining community capacity to address specific health issues and comparing that capacity with the community's performance on specific health initiatives.

**CONCLUSIONS:** Although judging these tools as capacity-building interventions is premature, the data they generate (when replicated across different settings and investigators) will explicate and refine the theory and lead to additional quantitative theory-testing evaluation. The theory provides a practical framework by which to select measurable indicators and evaluate the community capacity needed for or resulting from a community initiative.

**LEARNING OBJECTIVES:** Participants will be able to describe (1) tools for determining a community's capacity in planning and evaluation and (2) how triangulation and replication of practical data-gathering tools can advance scientific knowledge about community capacity.

## Innovative Partnerships at the State and Local Level

D. Backman, T. Garbolino, R. Armijo

**PURPOSE OF THE PROGRAM:** To provide participants with innovative strategies for creating public and private partnerships at the state and community levels and to help participants recognize the role that partnerships can play in the success of their own programs.

**SETTING:** The California 5 a Day campaign targets children, Latino adults, and low-income families with the message to eat at least 5 servings of fruits and vegetables and be physically active every day. The campaign involves a variety of public and private partners, including schools, retailers, governmental agencies, agricultural organizations, and the media.

**INTERVENTIONS:** At the state level, the 5 a Day campaign has partnered with the American Cancer Society to conduct the annual Spring into Health Day and with Safeway stores on their Eat Like a Champion promotion. At the community level, the campaign and its grantees have successful partnerships with the media, restaurants, produce distributors, grocery stores, food banks, and other community-based organizations.

**OUTCOMES:** Through partnerships, the campaign has maximized its budget and increased Californians' exposure to the 5 A Day and physical activity messages. Since 1998, these partnerships have garnered approximately \$1.75 million of in-kind contributions.

**CONCLUSIONS:** Directors of the California 5 a Day campaign have learned the importance of building and maintaining trust, establishing relationships, and identifying mutual benefits among campaign partners. Partnerships built upon these foundations have expanded beyond original expectations and extended the campaign's messages.

**LEARNING OBJECTIVES:** Participants will be able to identify unique potential partners, the benefits of public/private partnerships, and the keys to successful, long-term partnerships.

## Assessment of Efforts to Gather Data About Health Promotion Effects

D. Contractor

**OBJECTIVE:** To examine various efforts to gather data about the effects of health promotion.

**SETTING:** Efforts assess the effects of health promotion have been conducted by organizations such as the World Health Organization (WHO)—European Working Group on Health Promotion Evaluation, the International Union for Health Promotion and Education, the Community Preventive Services Task Force, the Centers for Disease Control and Prevention, and Pan American Health Organization Healthy Municipalities.

**METHOD:** In order to understand and compare the various efforts, we used a matrix of questions in several categories: in methodologies used in examining evidence and fostering evaluation priorities, in audience definitions of effectiveness or priorities, in outcomes of individuals targeted by promotions, and in the process by which recommendations were made. Finally, we compared the strengths and weaknesses of the various health promotion efforts.

**RESULT:** There were significant differences in how and to what extent groups examined the effects of their health promotion efforts. Groups differed in how they defined an effective health promotion campaign, largely because they focused on different health outcomes and determinants of health.

**CONCLUSION:** Questions regarding the relevance and current use of these efforts need to be further explored. There is also a clear need to establish a standard set of rules for evidence so that the work done by each of these groups can begin to complement and strengthen the overall evidence base.

**LEARNING OBJECTIVES:** Participants should be able to describe the context in which each evidence-examining group operated and the results of the groups' efforts. Participants should further be able to use this understanding to assess the relevance of these evidence-gathering efforts and where these efforts fall short.

# Using Qualitative Analysis Software to Analyze Focus Group Results

J. Geppert, P. Van Zyl York

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**OBJECTIVE:** To compare a qualitative analysis conducted with Atlas ti software with an analysis conducted by noncomputerized methods.

**SETTING:** Computerized methods for conducting qualitative analysis is attractive to researchers who hope to streamline some of the tasks of data reduction, coding, and grouping. It is frequently assumed that the conclusions gathered from computerized and noncomputerized methods will be similar.

**METHOD:** We analyzed focus group responses on several topics using both traditional qualitative methodology and Atlas ti, compared the results these analyses, and calculated the time needed for each.

**RESULT:** Quantitative analysis with Atlas ti software took longer than traditional methods because the software enabled us to do more in-depth analysis once the phrases were coded. Qualitative analysis with software produced more detailed results, allowed us to create data displays more easily, and allowed us to quantify the number of times phrases were used. Results from both types of computerized data analysis produced a more detailed and representative report than that produced by traditional methods.

**CONCLUSION:** Noncomputerized methods of qualitative data analysis involve tedious coding and cutting and pasting before conclusions can be written. Computerized methods provide a different type of tedium and are often more time-consuming than traditional methods. Qualitative analysis software allows for more in-depth and accurate data analysis than traditional analytic methods.

**LEARNING OBJECTIVE:** Describe the relative merits of computerized and traditional methods of analyzing focus group data.

## Colorectal Cancer Screening Characteristics in an Underserved, Hispanic Population Near the U.S.–Mexico Border

R. Tyroch, S. Prasad, L. Kim, L. Aragon, L. Barrett

**OBJECTIVE:** To examine previous colorectal cancer screening and financial characteristics of an underserved, Hispanic population near the U.S.–Mexico border who participated in a novel colorectal cancer screening program.

**SETTING:** Eliminating disparities in health care and health outcomes and increasing years of healthy life for all are the major goals of *Healthy People 2010*. Few data are available on the financial and colorectal cancer screening characteristics of indigent border Hispanics.

**METHOD:** Bilingual educators personally approached 1,455 Hispanic patients for the purpose of recruiting them into screening within a collaborative screening network. Patient payment methods and previous colorectal cancer screening history were examined and compared with Behavioral Risk Factor Surveillance System (BRFSS) data.

**RESULTS:** A 1999 BRFSS survey revealed that 32% of Americans had ever participated in colorectal cancer screening. In our study, 333 participants consented to screening, of whom 35% reported undergoing previous screening. In contrast, of 1,179 participants who refused screening, only 17% had undergone previous screening. Patient payment methods were the same in the screened and unscreened subgroups (i.e., 28% of each group were Medicare recipients).

**CONCLUSION:** Most Hispanics living near the U.S.–Mexico border who were approached by bilingual educators in a clinic setting had not undergone previous colorectal cancer screening and refused to participate when recruited. Financial characteristics did not differ between those who underwent screening and those who didn't. The percentage of individuals in the target population who had undergone previous screening was similar to that found in the BRFSS study.

# Mutual Benefit in Academic–Community Partnerships: Lessons Learned from Evaluation of the Sarasota Demonstration Project

*M. Forthofer, D. Eaton, L. Zapata, C. Bryant, K. McCormack Brown,  
R. McDermott*

**OBJECTIVE:** To describe the methods used by the Florida Prevention Research Center at the University of South Florida to understand and balance the tensions inherent in academic–community partnerships and to understand the benefits and costs of participating in academic–community partnerships aimed at disease prevention and health promotion.

**SETTING:** The Florida Prevention Research Center (FPRC), one of 24 health promotion and disease prevention centers funded by the U.S. Centers for Disease Control and Prevention, is focused on community-based prevention marketing (CBPM), a community-directed social change process that applies marketing theories and techniques to the design, implementation, and evaluation of health promotion and disease prevention programs.

**METHOD:** The evaluation research initiative used by the FPRC is multifaceted. Nonetheless, a common theme connecting all evaluation tasks is the establishment of a feedback system that enables both university and community partners to identify opportunities for and enact refinements of the CBPM model.

**RESULTS:** Understanding the ways in which the costs and benefits of participation vary over the course of the project not only enables the partnership to respond appropriately but also fosters an understanding of what can be expected in future community-based health promotion initiatives.

**CONCLUSION:** In initiatives that involve academic–community partnerships, evaluation is one of the most important, yet often overlooked, project components. When thoughtfully designed, evaluation research can be used to assess the benefits and costs of involvement for both university and community partners.

**LEARNING OBJECTIVES:** Participants will be able to identify (1) the most common tensions present in academic–community partnerships, (2) strategies for managing such tensions, and (3) evaluation research strategies for monitoring the development of academic–community partnerships.

## Linking Health and Literacy Development: A Pilot Study of Researchers, Tutors, and Schools as Partners

B. Mazdra, D. Haire-Joshu, M.S. Nanney, P. Ballew, K. Hessler,  
R. Brownson

**PURPOSE OF THE PROGRAM:** To develop a pilot study testing a multicomponent, school-based intervention aimed at changing dietary and physical activity behaviors of underserved children and their parents.

**SETTING:** One urban school district in St. Louis, Missouri.

**INTERVENTION:** Tutors were trained to deliver one-on-one session plans to their students. Each session plan involved reading tailored storybooks and writing about diet/activity objectives with students. Prescriptive newsletters were sent home to parents.

**OUTCOMES:** Coordinating the delivery of these intervention components and strategies to align intervention delivery with evaluation methods presented significant challenges. Program implementation was assessed by multiple process and outcome indicators. Evaluation of these indicators provided feedback needed to refine the study protocol and the measures needed for a successful partnership between existing agency and school structures. Tutors completed training surveys and session plan checklists; parents and students completed pre-test and post-test surveys; the project nurse completed cholesterol screenings and filled out environmental assessments; and agency and school administrators completed process evaluation reports.

**CONCLUSIONS:** Results from the pilot study indicated that the following areas were in need of refinement: accountability (coordination of intervention components), quality (data management) and communication (information transfer between multiple constituencies). Lessons learned included strategies that public health researchers can use to successfully partner with a national intergenerational tutoring program and strategies that elementary schools can use to integrate health education into reading and language skill development curriculum. Findings from the pilot will inform the subsequent 4-year, 3-group randomized trial involving 23 school districts and 1,400 underserved children and parents.

**LEARNING OBJECTIVES:** Participants will better understand the challenges to implementing a multicomponent intervention and collaborating with a community-based agency and a school system and learn strategies to overcome these coordination, management, and communication barriers.

# Public Health Partnerships: Strategies to Build Comprehensive Federal, State, and Local Obesity Surveillance

*K. Peterson, J. Salkeld, D. Pearlman, L. Cunningham-Sabo*

8

ROUNDTABLES

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**PURPOSE OF THE PROGRAM:** To establish a national workgroup of public health researchers and practitioners to recommend approaches to building comprehensive federal, state, and local obesity surveillance.

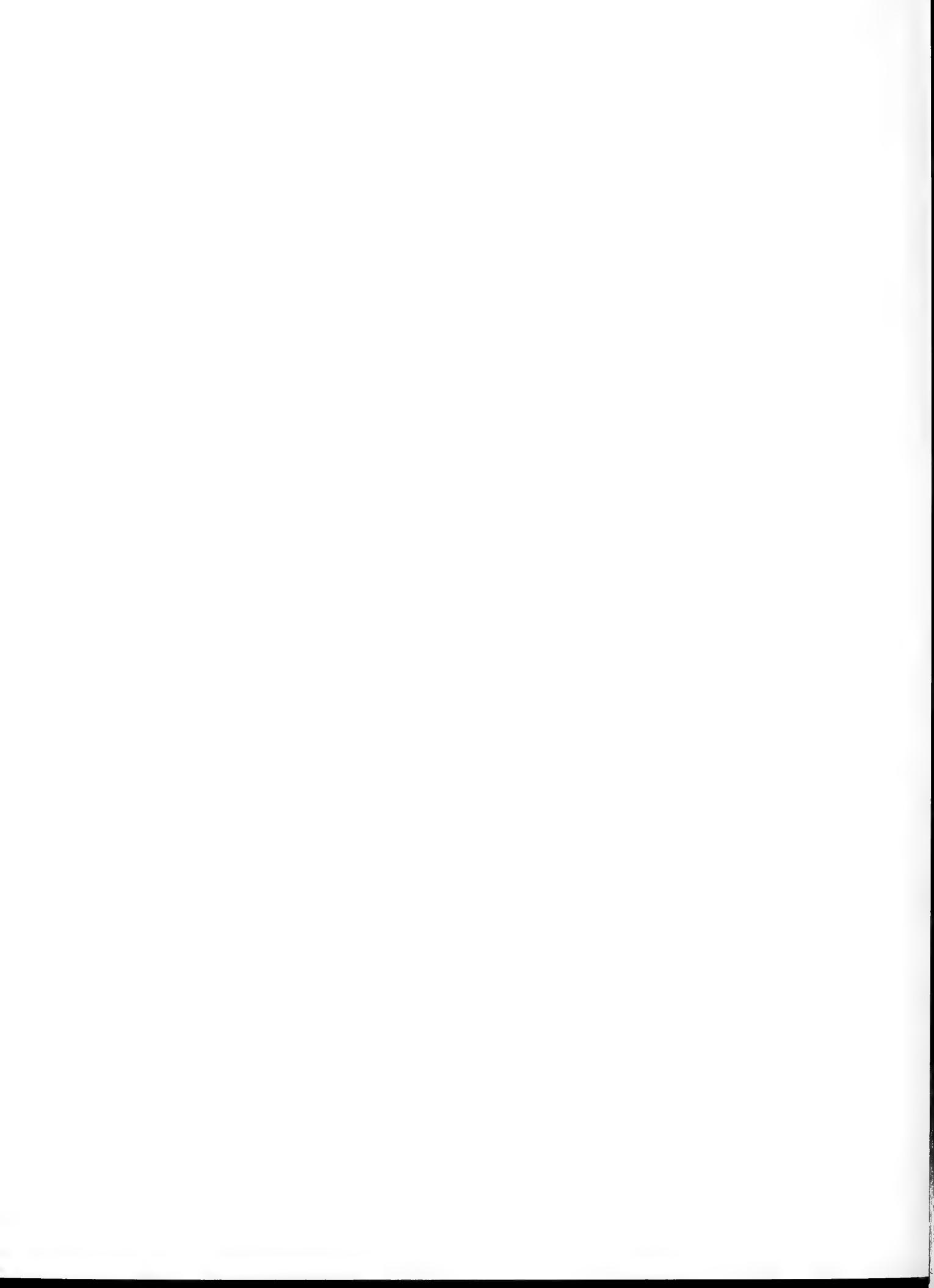
**SETTING:** This is one of three presentations submitted by the Obesity Prevention Network (OPN), a network funded by the Centers for Disease Control and Prevention (CDC), Prevention Research Centers (PRCs), and state departments of health (DPHs). Existing federal, state, and academic partnerships provide the basis for developing and evaluating surveillance approaches that support obesity prevention and control initiatives.

**INTERVENTIONS:** Workgroup activities include (1) identifying gaps and opportunities in national, state, and local surveillance of obesity and modifiable risk factors at different levels of influence; (2) designing a prototype for comprehensive obesity surveillance; and (3) evaluating the feasibility of recommendations in two state settings.

**OUTCOMES:** In 2003, we will disseminate recommendations for comprehensive obesity surveillance to national, state, and local public health partners. We will also provide a model process for identifying additional surveillance needed to support obesity prevention and control.

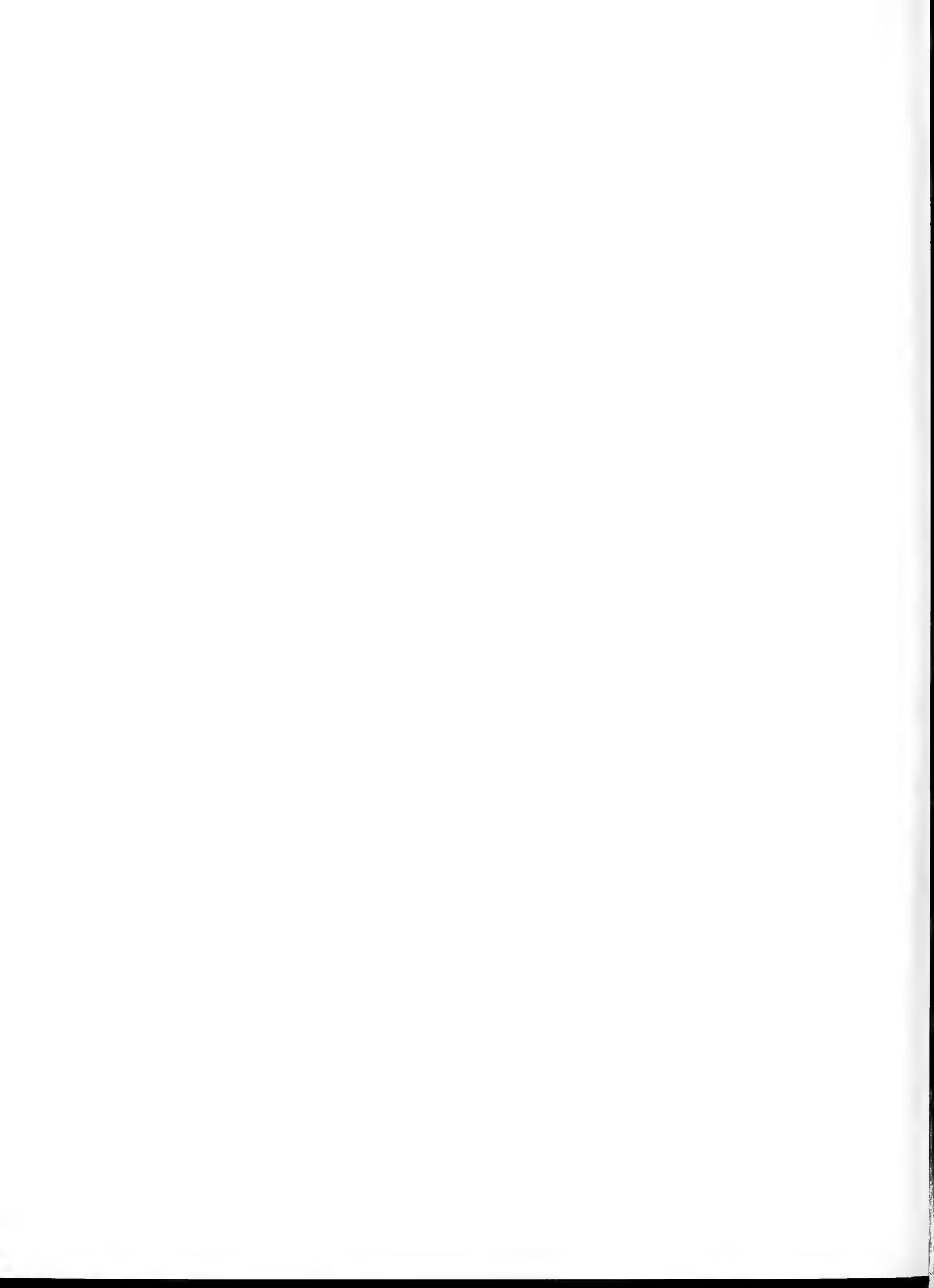
**CONCLUSIONS:** Effective public health responses to increases in the prevalence of obesity in the United States will depend on timely and comprehensive surveillance. While many PRCs and DPHs have some population-based data related to obesity, information gaps hamper national and state efforts to design and monitor programs to alter trends. Our prototype for comprehensive obesity surveillance at national, state, and local levels responds to this need, but before this prototype can be adopted, we must develop a survey instrument that is brief and easy to administer, while addressing the special data needs of at-risk populations, such as racial/ethnic minorities and children.

**LEARNING OBJECTIVES:** Participants should be able to identify potential academic and public health partners and the processes required to establish an obesity surveillance workgroup, to identify approaches to assessing existing surveillance activities, and to evaluate the feasibility of using recommended approaches.



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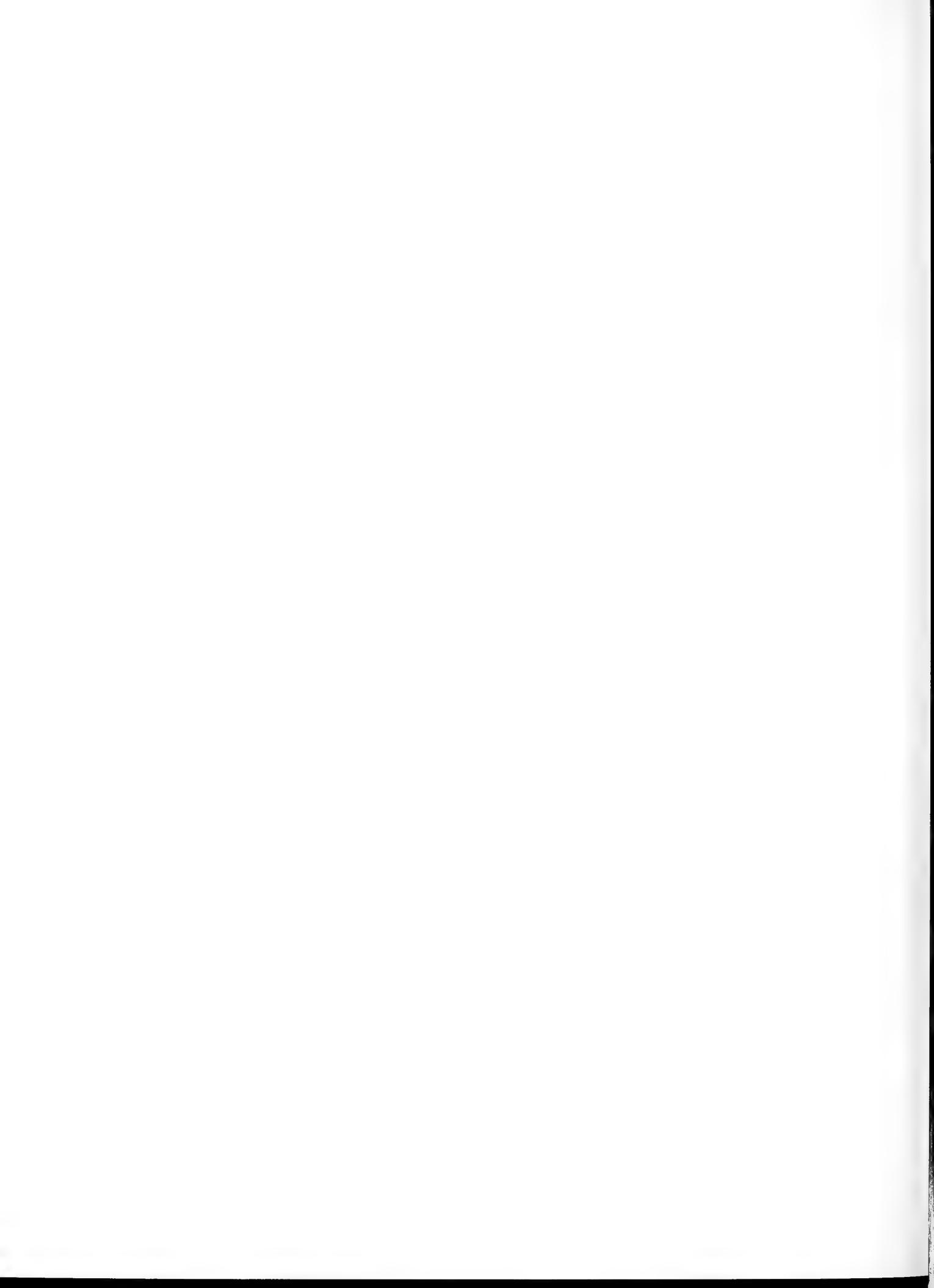
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